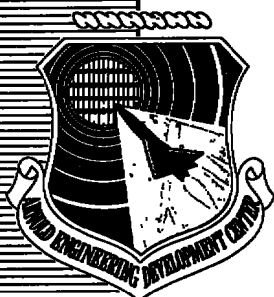


AEDC-TMR-86-P21

C.2



AN ANALYSIS OF THE PRODUCTIVITY AND OPERATING COST OF  
THE AEDC PROPULSION WIND TUNNELS

T. O. Shadow  
Calspan Corporation  
AEDC Division

January 1987

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This report has been reviewed and approved.



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## SUMMARY

An analysis of the productivity and operating cost of the AEDC Propulsion Wind Tunnels (PWT) has been performed using the database developed for the PWT Operations Analysis System (OAS). The analysis includes data from FY81 through FY86 and is divided into four categories consisting of (1) productivity, (2) direct cost, (3) labor, and (4) energy for each test type. Further analysis of the breakdown of the direct cost into labor, electricity, material, computer, and maintenance surcharge costs is also included. The databases for Tunnels 4T, 16T, and 16S are described in detail along with techniques used to generate the data and plots presented in this report. Additional applications of the use of the databases for specialized analysis is also demonstrated.

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## NOMENCLATURE

AOH	Air-On Hours
ATP	Air-On Test Point
BAL	Force Test
BAP	Force and Pressure Test
CTS	Captive Trajectory System Test
DYD	Dynamic Drop Test
DYS	Dynamic Stability Test
FY7T	Three Month Transitional Period Between FY76 and FY77
GRD	Grid Test
I/R	Install/Remove Hours
MHR	Man-Hour
MAG	Magnus Test
MIS	Miscellaneous Test
NAB	Nozzle Afterbody Test
OP	Output Parameter - the Basic Measure of Quantity of Testing in the PWT Tunnels: One OP is Equal to One Run Number
OSH	Operating Shift Hour
PRS	Pressure Test
RUN	Run Number is a Group of ATP Recorded during One Sweep of the Primary Variable
SIP	Scaled Inlet Pressure Test
TYPE	Test Type
UOH	User Occupancy Hour, OSH - AEDC Downtime - I/R

## SUBSCRIPTS

C	Tunnel 4T				
S	Tunnel 16S	For Example:	$\left\{ \begin{array}{c} \text{BALC} \\ \text{BALS} \\ \text{BALT} \end{array} \right\}$	are	$\left\{ \begin{array}{c} \text{4T Balance} \\ \text{16S Balance} \\ \text{16T Balance} \end{array} \right\}$ Tests.
T	Tunnel 16T				

## 1.0 INTRODUCTION

The Propulsion Wind Tunnel Facility includes five wind tunnels, of which three are used primarily for aerodynamic and propulsion user testing (4T, 16T, and 16S), and two are used as research facilities (1T and ART). This report covers the operation of Tunnels 4T, 16T, and 16S from FY81 to FY86.

A program has been underway for several years to improve the energy efficiency of the tunnels, improve the data production rates, reduce the manning requirements, and thereby decrease the operating cost. The PWT Operations Analysis System (OAS) was developed to quantify the savings and identify improvements with the largest cost savings. The OAS (Fig. 1) consists of a large database containing test statistics from each of the tunnels and supporting software for periodically updating the database. The OAS was developed during the analysis of the operations of Tunnels 16T and 4T which are documented in Ref. 1 and 2 respectively.

The work reported herein was performed by the Calspan Corporation, AEDC Division, operating contractor for Aerospace Flight Testing at AEDC, AFSC, Arnold AFS, Tennessee, under program element 65807F. The work was conducted under AEDC Project C640PW (Calspan Project P41G-OJ). The Air Force Project Manager was Capt. M. Taylor.

## 2.0 APPARATUS

### 2.1 TEST FACILITIES

Tunnel 4T is a closed-loop, continuous flow, variable density tunnel in which the Mach number can be varied from 0.2 to 1.3 and can be set at discrete Mach numbers of 1.6 and 2.0 using nozzle inserts placed over the permanent sonic nozzle. At all Mach numbers, the stagnation pressure can be varied from 160 to 3,400 psfa. The test section is 4 ft. square and 12.5 ft. long with perforated, variable porosity (0.5- to 10.0- percent open) walls. The test section is completely enclosed in a plenum chamber and permits part of the tunnel air flow to be removed through the perforated walls.

Tunnel 16S is a variable density continuous flow wind tunnel capable of being operated at Mach numbers from 1.5 to 4.75 and stagnation pressures from 160 to 2,300 psfa. The test section is 16 ft. square and 40 ft. long.

Tunnel 16T is a variable density continuous flow wind tunnel capable of being operated at Mach numbers from 0.06 to 1.6 and stagnation pressures from 160 to 4,000 psfa. The test section is 16 ft. square and 40 ft. long.

Each tunnel is equipped with a pitch sector with remote roll capabilities and a dual model support system for evaluating separation of stores from aircraft. Tunnels 16S and 16T also have the unique capability of testing full-scale propulsion and decelerator systems. The wind tunnels are described in detail in Ref 3.

### 2.2 COMPUTER HARDWARE

The OAS computer system consists of an IBM PC/XT with the following options:

- o 640K Memory
- o IBM Enhanced Graphics
- o Floppy Disk
- o 10 MB Hard Disk
- o IBM 3278/79 Terminal Emulator
- o Dual 10 MB Bernoulli® Disk Drive
- o Epson FX-286 Dot-Matrix Printer

The hard disk is used for working files and the Bernoulli disk drive system is used primarily for backup of the the database and the database analyses files. The Bernoulli system can be used in the same manner as the hard disk but also has the capability to allow removal of the 10 MB cartridges for storage outside the unit. Files that are no longer active can be archived and stored in the same manner as a floppy disk.

The terminal emulator will allow the IBM PC/XT to be used in the same manner as the IBM 3278 or 3279 terminals for loading information directly from the mainframe business computer.

## 2.3 COMPUTER SOFTWARE

Software for the OAS computer consists of:

- o Lotus 123®, Version 2 - Multifunction Worksheet Package Consisting of Spreadsheet, Database, and Graphics Options
- o Microsoft Chart® - Presentation Graphics
- o Microrim R Base 5000® - Database Package
- o Microstuf Crosstalk® - Software for Communications Between the OAS Computer and the Mainframe Business Computer

## **3.0 DATABASE DESCRIPTION**

### **3.1 GENERAL**

#### **3.1.1 Database Layout**

The standard Lotus 123 database format, with the exception of the macros, is used for all the databases described in this report. The Lotus 123 database option is described in detail in Ref. 4. Each database consists of four components including:

- o Data
- o Criteria
- o Outputs - Resulting From Criteria Query
- o Macros - Database Management and Fiscal Year Query

A layout of the various components of the database is presented in Fig. 2. Examples of each of the database components are shown in Fig. 3.

#### **3.1.2 Database Manipulations**

Database manipulations consist of sorting and querying the data according to preset criteria. Sorting is particularly useful for temporarily rearranging the data for entry or modification of the data. Sorting also can be used to lump the data into groups of like parameters for analysis. The data can be sorted on any of the 34 parameters using a primary and secondary key parameter, with alpha or numeric characters, and in ascending or descending order. The main database or the output from the database query may be sorted.

Data query is useful for preparing reports. The reports can be generated directly from the database or generated and passed on to another file for further processing. Examples of both types will be demonstrated later in this report. Criteria for the 34 parameters may be set individually or in any combination up to all at the same time. The criteria may consist of naming all or a portion of the parameter, providing a range for the parameter, or including the parameter in an equation.

Macros are commands that take the place of manual keystrokes. Any keystroke that applies to Lotus 123 can be replaced with a macro command. This allows a series of keystrokes to be automated and all macro commands in the string will be executed after invoking the macro. For example, without the macro, the Fiscal Year query of the database used in this report would require 303 keystrokes for each test type.

### **3.2 TEST DATABASE**

The test database for each of the three tunnels consist of a listing of each test entry in the tunnel from the beginning of FY75 until the end of FY86. The data are currently installed on the Lotus 123 database option. However, the database can be



quickly translated to most of the popular database programs using the Lotus 123 translation option. Each test entry consists of 34 parameters that identifies the test, describes productivity, and lists the direct costs.

The number of Air-On Test Points (ATP) and Output Parameters (OP) on a test are determined with a computer program called OPSTAT which is run on the AMDAHL 5606 base computer. Despite continuous improvements to the program and operating procedures, a small percentage of the OP's and ATP,s do not get counted. Although the percentage is small, the effects may be noticed on test types where only a few tests are run in a given year.

A complete listing of the Test Database for the three tunnels is given in Appendix A.

### **3.3 WORK PHASE DATABASE**

The work phase database also contains information on completed test projects and the layout of the database is exactly like the test database (Fig. 2). The work phase database is broken into the eight work phases, described in Ref. 1 and 2, and includes information contained in the Test Unit Utilization Reports (TUUR) and the Project Resource Statements (Report CA 793C) which lists the manhours and cost used on a project. A total of 27 unique parameters for each project are included in the database. Each project includes 9 lines of data which is made up of the eight work phases and the totals. Some of the projects include multiple test type entries, however they are not broken down by test types as in the test database.

A sample listing of the Work Phase Database for the three Tunnels is presented in Appendix B.

## 4.0 PRODUCTIVITY AND OPERATIONS COST ANALYSIS

### 4.1 GENERAL

The test database described in section 3.2 was queried with a special macro that collects data for a specified test type for each fiscal year and sums each parameter. The purpose of the query was to determine the trends with fiscal year for each of the totals. The collection of the totals is essentially automatic with one pass through the macro producing totals for one test type. These totals were passed on to a separate file for further calculations.

Separate files were created for plotting that include the raw totals and ratios that indicate productivity, direct operating cost, manhour and electricity statistics. The following ratios were calculated:

- |           |           |
|-----------|-----------|
| • ATP/UOH | • MHR/UOH |
| • ATP/AOH | • MHR/AOH |
| • OP/UOH  | ○ MHR/OSH |
| • OP/AOH  | • MHR/OP  |
| • \$/UOH  | • MHR/ATP |
| • \$/AOH  | • MWH/UOH |
| ○ \$/OSH  | • MWH/AOH |
| • \$/OP   | ○ MWH/OSH |
| • \$/ATP  | • MWH/OP  |
|           | • MWH/ATP |

These files are listed in Appendix C for Tunnels 4T, 16T, and 16S. Only those ratios preceded by a dark bullet are plotted in this report. Several test types are included in the listing in Appendix C including:

- | <u>4T</u> | <u>16T</u> | <u>16S</u> |
|-----------|------------|------------|
| • ALL     | • ALL      | • ALL      |
| • BALC    | • BALT     | ○ BALS     |
| ○ BAPC    | • BAPT     | ○ BAPS     |
| • CTSC    | ○ DYST     | ○ MISS     |
| • DYDC    | ○ FSIT     | ○ NABS     |
| ○ DYSC    | • MIST     | ○ SIPS     |
| • GRDC    | • NABT     |            |
| ○ MAGC    | • PRST     |            |
| ○ MISC    | • SIPT     |            |
| ○ NABC    |            |            |
| ○ PRSC    |            |            |

Only those test types preceded with a dark bullet are plotted in this report.

The level of effort in each of the tunnels, consisting of the variation of operating shift hours (OSH), user occupancy hours (UOH), air on hours (AOH), and install/remove hours (I/R) is presented in Fig. 4. Also included on the plots is the total

number of tests conducted for each fiscal year in each tunnel. The number of tests located on the upper left plot applies to all plots on that page (typical throughout the report).

## 4.2 PRODUCTIVITY STATISTICS

Productivity statistics are described by the ratio of the two productivity parameters, (OP and ATP), to specified units of time (AOH and UOH). The productivity statistics as a function of fiscal year for All Tests and several test types in Tunnels 4T, 16T, and 16S are presented in Figs. 5 through 7 respectively.

The statistics represent the total accumulated for each year, and in some years, only a few tests of a given type were run. Statistics of this type may distort the conclusions reached. For example, see Fig 6b where, in FY86, only one BALT test was run and, because of the requirements of that test, the ATP/UOH was very low. The best trends with fiscal year were the statistics for All Tests (Figs. 5a, 6a, and 7a) where many tests are included in the averages. Additional tunnel statistics are presented in Fig. 8 that will assist in understanding the trends.

## 4.3 DIRECT OPERATING COST STATISTICS

Direct operating cost is the amount charged directly to the tunnel users and consists of labor costs, material costs, electricity costs, computer costs, and maintenance surcharges. The cost of the various components as a percentage of the total during the period from FY81 to FY86 is presented in Fig. 9 for Tunnels 4T, 16T, and 16S. In Tunnel 4T (Fig. 9a), the cost of labor and electricity dominated the early year totals. In recent years, labor costs are taking a larger percentage of the resources. Tunnel 16T (Fig. 9b) is more energy cost intensive. However, since FY81 the percentage of the overall cost due to energy has been decreasing. The escalating cost of energy was offset by reductions in energy usage with improvements in tunnel operations. Tunnel 16S (Fig. 9c) is even more energy intensive than Tunnels 4T and 16T, however, the trends are erratic because of the limited testing during this period. For all tunnels, the material and labor surcharges have increased to become a significant part of the operating cost.

Cost Statistics for All Tests and the various test types in Tunnels 4T, 16T, and 16S are presented in Figs. 10 through 12 respectively. The ratio of total dollar cost to UOH, AOH, OP, and ATP are presented as a function of fiscal year.

The greatest consumer of resources in conducting tests is labor and electricity. The databases were used to extract the average \$/manhour and \$/megawatt hour rates over the reporting period and the results are presented in Fig. 13. The rate of increase of manhour cost has been reduced while the electricity rates peaked in FY82 at about 76 \$/MWH and were reduced by renegotiating the TVA power contract for a different method of determining demand charges.

Of all the cost statistics shown in Figs. 10 through 12, the best indicator of the data cost is the unit cost of a data point (\$/ATP). The variation of \$/ATP with fiscal year (Figs. 10a, 11a, and 12a) shows approximately the same trends as the cost of electricity over the same period (Fig. 13). To determine the cost of a data point neglecting the changes in labor and electricity costs, calculations were made with the rate variations and with constant labor and electricity rates as follows:

$$\begin{aligned} \$/\text{ATP} = & \$/\text{ATP}\{\text{labor}\} + \$/\text{ATP}\{\text{material}\} + \$/\text{ATP}\{\text{electricity}\} \\ & + \$/\text{ATP}\{\text{computer}\} + \$/\text{ATP}\{\text{surcharge}\} \end{aligned} \quad (1)$$

where:

$$\$/\text{ATP}\{\text{labor}\} = \text{MHR}/\text{ATP} * \$/\text{MHR} \quad (2)$$

$$\$/\text{ATP}\{\text{electricity}\} = \text{MWH}/\text{ATP} * \$/\text{MWH} \quad (3)$$

By substituting the labor and electricity rates for FY81 into equations (2) and (3) and holding them constant over the FY range, most of the effects of inflation and contract changes are eliminated. However, changes in the AEDC accounting system such as adding maintenance surcharges and shifting personnel charges from overhead accounts to direct project charges (security guards, plant personnel, etc) cannot be normalized. Also, significant increases in the average test complexity (sophisticated models, high-pressure air usage, simultaneous multiple force and pressure measurements, nozzle block usage, etc) have tended to increase the cost of a data point. The results of the calculations are shown in Fig. 14. Despite the factors tending to increase data cost, the normalized cost has actually decreased (4T) or been held near constant (16T).

#### 4.4 LABOR STATISTICS

The variation of total manhours (Calspan + Support + Overtime) per UOH, AOH, OP, and ATP with fiscal year for All Tests and several test types for Tunnels 4T, 16T, and 16S are presented in Figs. 15 through 17 respectively.

#### 4.5 ELECTRICITY STATISTICS

The variation of megawatt hours (MWH) per UOH, AOH, OP, and ATP with fiscal year for All Tests and several test types for Tunnels 4T, 16T, and 16S are presented in Figs. 18 through 20 respectively.

These plots illustrate the fact that in Tunnel 4T (Fig. 18a), the use of electricity per AOH has been relatively constant over the reporting time period. A major renovation of Tunnel 4T is scheduled to start in FY89 to add an independent compressor especially designed for 4T that will significantly reduce the use of electricity.

## 5.0 SPECIAL ANALYSIS TECHNIQUES

### 5.1 WORK PHASE ANALYSIS

#### 5.5.1 Project Resource Prediction

The work phase database described in Section 3.3 and listed in Appendix B was developed to use as a tool to predict outyear estimates for conducting test projects. The typical procedure in the past has been to collect data from completed CT-793's and hand plot data from a particular test type and work phase (for example: TOTAL MANHOURS-vs-UOH). The result is that total man-hours can be estimated if UOH are known. Since UOH are known prior to a test, this is the best method for predicting not only manhours, but other resources as well. This manual process is laborious and difficult because the data is often very erratic and must be repeated for each parameter required.

The work phase database uses the same format as the Test database. Output format 1 (Fig. 21) includes a special section for displaying the results of a linear regression performed on any two parameters on the database. The two main outputs from the regression is the constant (intercept) and the x coefficient (slope). The intercept and slope are used in the linear equation:

$$\text{Manhours} = \text{Intercept} + \text{Slope} * \text{UOH} \quad (4)$$

to determine total manhours. In the example shown in Fig. 22 the database has been queried to obtain work phase 5 data (test phase) on all tests in Tunnel 16T. The actual and calculated values of total manhours are shown to obtain a visual determination of the quality of the curve fit. Note that on this example, the intercept was calculated at 1355.2 manhours, while on the plot, the curve fit is forced to intercept at zero. On a typical test, the total manhours for work phase 5 should be a function of UOH only and thus should intercept at zero. The LOTUS 123 regression option has the ability to recalculate the line coefficients with zero intercept.

In summary, the typical steps in analyzing test parameters by work phase are:

- o Load the Work Phase Database for a given tunnel
- o Enter the Test Type and Work Phase in the Criteria line
- o Query the Database
- o Choose the Two Parameters to be Analyzed
- o Use the Linear Regression Option to determine Intercept and Slope
- o Recalculate the Linear Curve Fit

- o Plot the Actual and Calculated Dependent Variables versus the Independent variable
- o Adjust the Intercept as Required

### 5.1.2 Fiscal Year Trends

Another use of the workphase database is to determine the trends of the use of resources with time for the project work phases. The database is queried with a macro to collect the average value of each parameter for a series of fiscal years, for each work phase, and the totals. One pass through the macro produces the output presented in Fig. 23 which is stored in the output 2 area of the database.

These data were arranged in the manner shown in order to produce the plots shown in Fig. 24. In this example the variation of the average total manhours with fiscal year is shown, however, any of the parameters in the output can be shown by resetting the plot vertical axis.

## 5.2 ECONOMIC ANALYSIS

One of the prime uses of the information in the databases is the determination of the economic viability of a project. One of the key parameters in the analysis is the payback period. There are many techniques for calculating the payback period, however, one used on the 4T Flexible Nozzle Project will be described.

In Tunnel 4T, ten different test types are run, however, most of the tests fall under two categories. That is, force tests (BALC) and store separation tests (CTSC and GRDC). According to the statistics (Fig. 25), the two groups of testing run about 35% for force tests and 46% for store separation tests. Baseline tests were developed for each group and they are presented in Appendix D. The baseline tests were developed into a spreadsheet to take advantage of the ease of varying parameters and quick recalculation capabilities. The time, manhours, and electricity for running the tests for each of the two test groups were determined using the current mode of testing, and then the same test assuming the installation of a flexible nozzle. The results are shown in appendix D and are summarized as follows:

Force Test	OSH	MWH	AOH	UOH	MHRS
Transonic	57.7	1,046.4	25.6	37.7	843.7
Supersonic	41.6	658.5	10.3	29.6	617.3
Total	99.3	1,704.9	35.9	67.3	1,461.1
Trisonic	65.1	1,316.0	31.9	45.1	960.8
Savings/Test	34.2	388.9	4.0	22.2	500.3

Separation Test	OSH	MWH	AOH	UOH	MHRS
Transonic	83.7	1,575.1	42.6	51.7	1,210.7
Supersonic	50.8	979.3	24.6	36.8	780.8
Total	134.5	2,554.4	67.2	88.5	1,991.5
Trisonic	103.5	2,279.8	59.4	71.5	1,527.5
Savings/Test	31.0	274.6	7.8	17.0	464.0

The savings per test must be propagated to annual cost savings in order to calculate the payback period. The database was used to determine that the average UOH used per year in Tunnel 4T is approximately 2,000 (Fig. 25). Assuming a 50/50 split between force and separation testing, the number of tests run annually would be:

$$\begin{aligned}
 \text{Tests/year} &= \frac{\text{UOH/YEAR}}{\text{UOH/TEST(FORCE)} + \text{UOH/TEST(SEPARATION)}} & (5) \\
 &= \frac{2,000}{45.1 + 71.5} = 17 \text{ of each test type}
 \end{aligned}$$

The annual savings of electricity would be:

$$\text{MWH/YEAR} = 17 * 388.9 + 17 * 274.6 = 11,280$$

The annual savings of manhours would be:

$$\text{MHR/YEAR} = 17 * 500.3 + 17 * 464.0 = 16,393$$

Assuming that the nozzle will be operational by FY88, the cost for electricity and labor is projected to be \$50/MWH and \$23/MHR respectively. The annual savings derived from the addition of a flexible nozzle in Tunnel 4T would be:

$$\text{Cost Savings/Year} = 11,280 * 50 + 16,393 * 23 = \$941,000$$

The estimated cost of the nozzle is \$3,500,000 in FY88 dollars. Therefore the simple payback period (SPB) is:

$$\text{SPB} = \frac{3,500,000}{941,000} = 3.7 \text{ Years}$$

## 6.0 TUNNEL 16S ANALYSIS

The OAS shown in Fig. 1 includes a special routine (TOCCP) to calculate the annual cost of operating Tunnels 4T and 16T. The statistical parameters required for the calculations were developed and documented in Ref. 1 and 2. Some of the parameters were derived from a collection of tunnel test conditions recorded on the PWT Real Time Computer (RTC) over a lengthy time period. These same test parameters were not recorded for Tunnel 16S because of the erratic operation schedule. Therefore, it is not possible to reliably make the cost calculations for Tunnel 16S until similar data are recorded.

Tunnel 16S has been recently brought back on line and is ready for normal operations. A project is under way to upgrade the RTC for all the Tunnels in PWT which will automatically calculate and record the statistical parameters required for the TOCCP. In the interim, the 16S routine has been set up such that when the statistical parameters become available, the calculations can be made.



## 7.0 FUTURE WORK

Hardware and software has been procured to connect the OAS to the AEDC mainframe business computer in order to electronically download test and project statistics. Successful experiments have been run on several other similar systems in downloading information from the mainframe system. However, the OAS has not been connected due to the PWT office renovation. A routine must be developed to automate the monthly update of the database to eliminate input errors and reduce the time required.

In the development of the software for the new RTC, inputs were made that will provide all the tunnel statistics required for the OAS calculations. That system will be placed on line over the next two years and will require coordination of the interfaces between the OAS and the RTC.

The special analysis techniques described in this report are examples of the type of information that can be derived from a detailed database. These techniques need to be developed further in order to reduce the time for preparing for tests and to make better estimates of cost of testing and capital improvement costs.

## 8.0 CONCLUDING REMARKS

An analysis of the productivity and operating costs of the AEDC Propulsion Wind Tunnels has been made using the Operations Analysis System. Based on the results of the study the following conclusions are made:

- o The Operations Analysis System database can be used to monitor tunnel productivity and cost statistics. In addition, the database is useful in analyzing the economic justification of improvement projects and for improving project cost estimates.
- o The cost of a data point, when normalized to FY81 for manhour and electricity cost changes, has been decreased or maintained near-constant. This trend has been obtained despite significant increases in test complexity and changes in project cost accounting.
- o General trends of the productivity and cost statistics show that the tunnel improvements are producing favorable results.

## REFERENCES

1. T.O. Shadow, "Progress Report on an Analysis of 16T Operations", AEDC-TMR-83-P27, December 1983.
2. T.O. Shadow, "An Analysis of Tunnel 4T Operations", AEDC-TMR-85-P16, November 1985.
3. Test Facilities Handbook (Twelfth Edition), "Propulsion Wind Tunnel Facility, Vol. 4", Arnold Engineering Development Center, March 1984.
4. LOTUS 123 REFERENCE MANUAL, Lotus Development Corporation, Copyright, 1985.

# PWT OPERATIONS ANALYSIS SYSTEM (OAS)

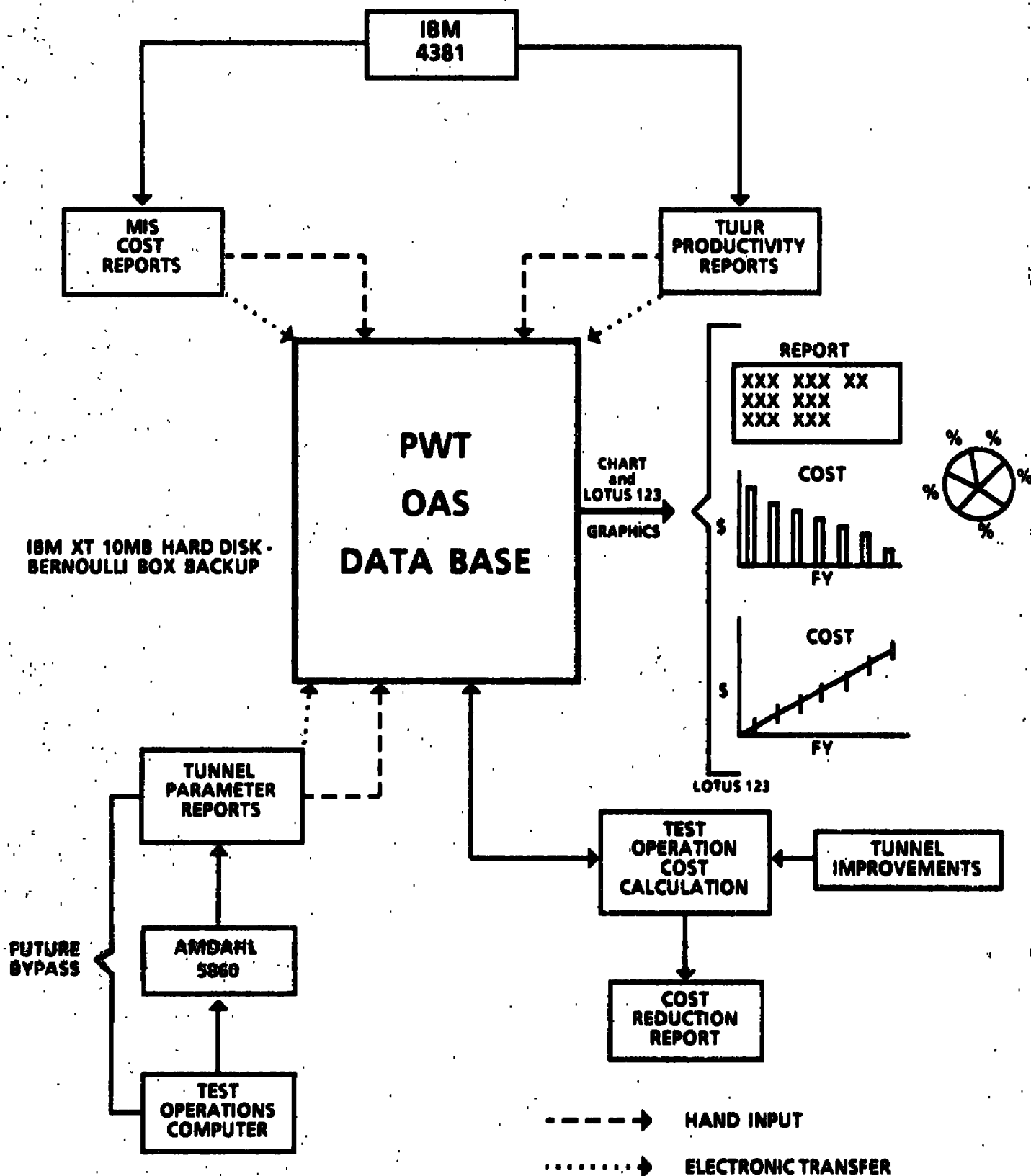


Figure 1. PWT Operations Analysis System

## DATABASE LAYOUT

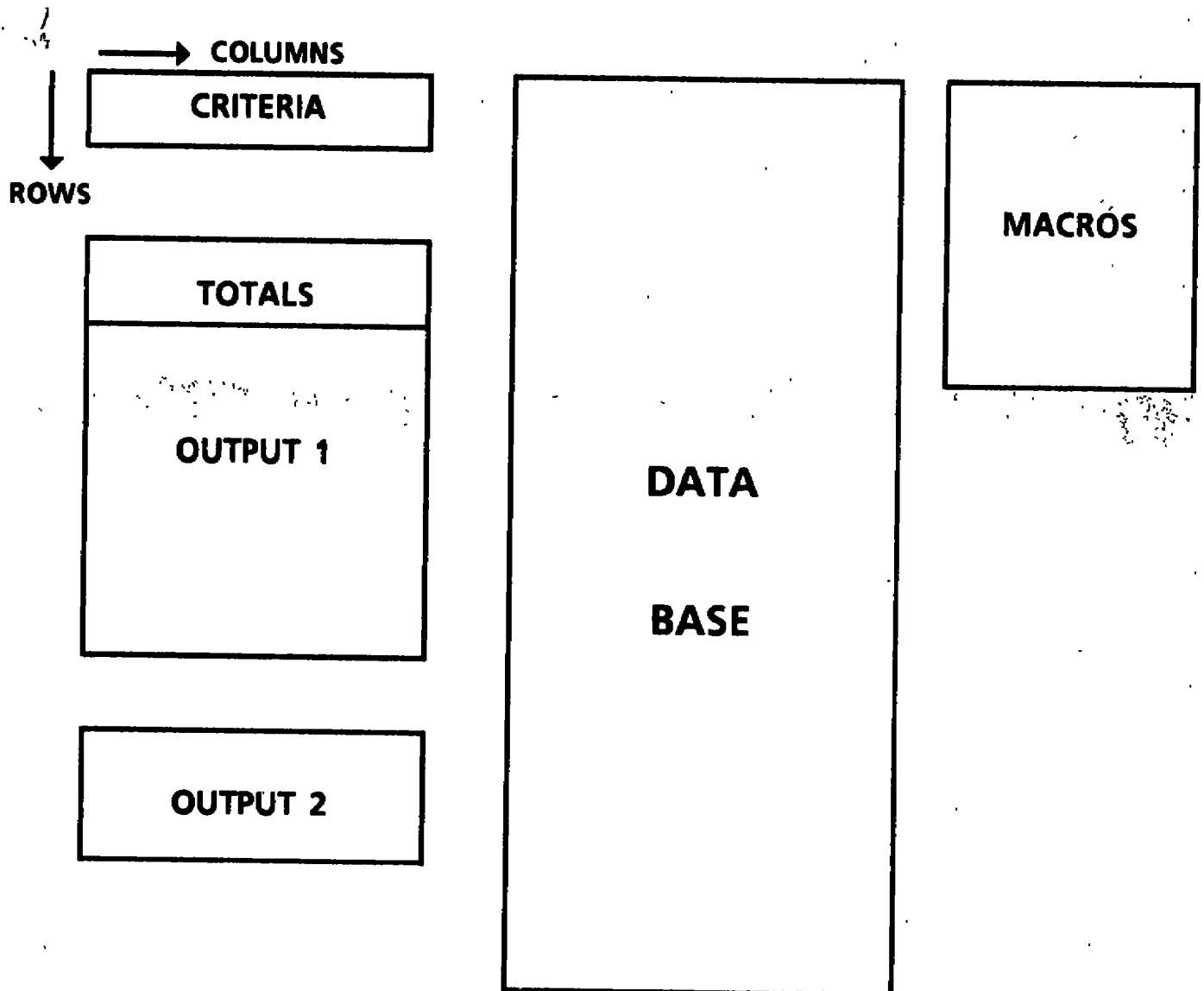


Figure 2. Database Layout

# 16T TEST STATISTICS DATA BASE

28-Aug-86

INPUT: ITEMS IN THE DATABASE

410

TEST PROJ A.F. SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	DSH	UDN	ACH	I/R	DOWNTIME		MM*	OP	ATP	MANHOURS		COST (\$)										TOTAL*
											SCHED	AEDC				CALSPAN	SUPPORT	OT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	CONF	OTHER		
344 60	SAMSO	HI	PRST	1.1	75	D. BAKER	1	64.0	60.4	37.3	0.0	0.0	3.6	4,709	91	1,630	2,673	363	264	3,300	28,736	1,127	0	398	24,792	0	0	55,053
345 65	AFFDL	B-1 WEAPONS BAY	PRST	1.2	75	J. RIDDELL	1	111.5	97.0	54.1	0.0	0.0	14.5	9,129	418	791	3,807	517	376	4,700	39,000	1,000	0	582	40,000	0	0	80,582
352 90	AEDC	16T IMPROVEMENTS	PRST	1.3	75	F. JACKSON	1	7.5	7.5	6.0	0.0	0.0	0.0	559	14	136	626	85	62	773	10,000	0	0	131	8,000	0	0	18,131
332 81	AFFDL	ONERA CORR	PRST	2.1	75	J. SPURLIN	1	73.0	48.3	25.9	8.5	0.0	12.0	3,798	100	1,400	2,592	352	256	3,200	26,000	0	0	335	20,000	0	0	46,335
346 51	AFFDL	ATV FLOWFIELD	GRDT	2.2	75	J. BLACK	1	176.0	116.9	53.0	40.3	0.0	6.6	4,729	212	2,120	7,938	1,078	784	9,800	80,000	3,000	0	953	48,000	0	0	131,953
350 75	ARMY	ISSON ROCKET	MAGT	2.3	75	M. WHITE	1	112.0	65.2	46.3	31.8	0.0	6.6	7,127	51	1,142	4,941	671	488	6,100	51,000	1,000	0	815	60,000	0	0	112,815
351 80	AFFDL	ASARD AFTERBODY	MAGT	3.1	75	L. GALISHER	1	79.2	73.6	52.9	0.0	0.0	5.6	5,503	102	1,005	5,589	759	552	6,900	52,000	2,000	0	611	30,000	0	0	84,611
352 90	AEDC	16T IMPROVEMENTS	PRST	3.2	75	F. JACKSON	1	0.8	0.8	0.8	0.0	0.0	0.0	251	1	30	83	11	8	103	2,213	35	0	33	2,350	0	0	4,631
349 62	ADTC	MSB II	PRST	3.3	75	S. MACLAUGHAN	1	48.0	36.4	15.6	11.0	0.0	0.6	1,625	89	1,843	2,754	374	272	3,400	28,000	0	0	313	15,000	0	0	43,313
356 72	AFFDL	1-24C	BALT	3.4	75	F. KEENEY	1	32.0	27.8	17.3	1.8	0.0	2.4	2,338	90	1,112	1,620	220	160	2,000	17,000	0	0	204	11,000	0	0	28,204
354 87	SAMSO	HI	BALT	3.5	75	D. REICHENAU	1	80.0	76.2	50.4	0.0	0.0	3.8	5,382	249	3,330	3,078	418	304	3,800	34,000	2,000	0	487	31,000	0	0	67,487
359 91	ASD	YF-16 A/B	BALT	4.1	75	J. BLACK	1	80.0	72.7	32.9	2.7	0.0	8.2	5,517	124	2,480	4,459	607	441	5,517	47,500	0	0	722	51,690	0	0	99,912
357 92	ASD	YF-16 A/B	BALT	4.2	75	J. SPURLIN	1	64.0	60.2	29.4	0.0	0.0	3.0	3,910	122	2,608	3,168	430	313	3,911	33,670	500	0	515	36,640	0	0	71,325
359 91	ASD	YF-16 A/B	BALT	4.3	75	J. BLACK	1	96.0	84.2	41.7	0.0	0.0	8.2	5,870	184	2,645	4,754	646	470	5,869	50,530	0	0	768	55,000	0	0	106,298
357 92	ASD	YF-16 A/B	BALT	4.4	75	J. SPURLIN	1	64.0	62.5	27.8	0.0	0.0	2.3	3,698	141	2,159	2,995	407	296	3,698	31,840	500	0	487	34,650	0	0	67,477
361 97	AFAPL	EXHAUST NOZZLE	MAGT	5.1	75	E. LUCAS	1	51.0	49.3	25.0	0.0	0.0	1.7	3,037	71	911	3,321	451	328	4,100	38,000	0	0	422	20,000	0	0	58,422
369 04	AEDC	16T CALIBRATION	PRST	5.2	75	F. JACKSON	1	32.0	32.0	24.2	0.0	0.0	0.0	3,433	100	599	2,835	385	280	3,500	30,000	0	0	313	13,000	0	0	43,313
344 60	SAMSO	HI	MAGT	5.3	75	D. BAKER	1	48.0	46.6	28.9	0.0	0.0	1.4	3,515	68	696	2,025	275	200	2,500	22,264	873	0	308	19,208	0	0	42,653
362 76	AFATL	FNU-1108	BALT	5.4	75	J. COLLINS	1	32.0	15.8	10.4	12.0	0.0	0.2	890	39	434	1,458	198	144	1,800	15,000	0	0	182	10,000	0	0	25,182
358 95	AFFDL	APSI INLET	SIPT	6.1	75	P. LAUER	1	48.0	47.4	31.0	0.0	0.0	0.6	4,439	79	393	2,673	363	264	3,300	27,000	0	0	415	30,000	0	0	57,415
343 63	ASD	B-1 INLET	SIPT	6.2	75	P. LAUER	1	80.0	77.5	52.4	0.0	0.0	2.5	7,845	152	720	1,048	145	105	1,318	11,064	1,742	0	159	9,087	0	0	22,052
370 10	ASD	YF-17	PRST	6.3	75	J. BLACK	1	53.8	36.1	15.1	12.0	0.0	1.7	2,867	47	258	2,673	363	264	3,300	28,000	1,000	0	378	23,000	0	0	52,378
352 90	AEDC	16T IMPROVEMENTS	PRST	6.4	75	F. JACKSON	1	1.2	1.2	1.2	0.0	0.0	0.0	112	3	11	126	17	12	155	1,330	18	0	17	1,050	0	0	2,416
355 88	ADTC	AIR SLEN	MAGT	7.1	75	B. PETERS	1	78.8	74.9	44.1	0.0	0.0	2.3	5,182	174	1,408	2,121	288	210	2,619	21,613	254	0	317	77,912	0	0	100,096
355 88	ADTC	AIR SLEN	MIST	7.2	75	B. PETERS	1	16.0	15.3	7.0	0.0	0.0	2.3	823	29	253	316	43	31	390	3,219	38	0	47	11,604	0	0	14,908
368 05	ARMY	HIGH ALPHA AERO	BALT	7.3	75	F. KEENEY	1	64.0	46.7	25.4	12.0	0.0	4.3	2,877	129	3,769	2,754	374	272	3,400	29,000	0	0	429	30,000	0	0	59,429

a. Database

Figure 3. Examples of Database Components

# 16T TEST STATISTICS DATA BASE

02-Nov-86

CRITERIA:						DOWN										MANHOURS					COST (\$)									
TEST PROJ	A.F. SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	DSH	UDN	ACH	I/R	AEDC	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*			
			BALT		75																									
15 = ITEMS FOUND BASED ON CRITERIA																														
TOTALS:						15	1,136.0	997.7	464.1	78.9	50.1	57,823	2,563	40,147	45,606	6,193	4,504	56,304	484,005	6,987	0	7,798	580,903	0	0	1,079,693				
AVERAGES:						1	75.7	66.5	30.9	5.3	3.3	3,855	171	2,676	3,040	413	300	3,754	32,267	466	0	520	38,727	0	0	71,980				
OUTPUT:																														
TEST PROJ	A.F. SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	DSH	UDN	ACH	I/R	AEDC	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*			
356	72	AFDIL	I-24C	BALT	3.4	75	F. KEENEY	1	32.0	27.8	17.3	1.8	2.4	2,338	90	1,112	1,620	220	160	2,000	17,000	0	0	204	11,000	0	0	28,204		
354	87	SWISO	PI	BALT	3.5	75	D. REICHENAU	1	80.0	76.2	50.4	0.0	3.8	5,382	249	3,330	3,078	418	304	3,800	34,000	2,000	0	487	31,000	0	0	67,487		
359	91	ASD	YF-16 A/B	BALT	4.1	75	J. BLACK	1	80.0	72.7	32.9	2.7	8.2	5,517	124	2,480	4,469	607	441	5,517	47,500	0	0	722	51,690	0	0	99,912		
357	92	ASD	YF-16 A/B	BALT	4.2	75	J. SPURLIN	1	64.0	60.2	29.4	0.0	3.0	3,910	122	2,608	3,168	430	313	3,911	33,670	500	0	515	36,640	0	0	71,325		
359	91	ASD	YF-16 A/B	BALT	4.3	75	J. BLACK	1	96.0	84.2	41.7	0.0	8.2	5,870	184	2,645	4,754	646	470	5,869	50,530	0	0	768	55,000	0	0	108,299		
357	92	ASD	YF-16 A/B	BALT	4.4	75	J. SPURLIN	1	64.0	62.5	27.8	0.0	2.3	3,698	141	2,159	2,995	407	296	3,698	31,840	500	0	487	34,650	0	0	67,477		
362	76	AFATL	FNU-1178	BALT	5.4	75	J. COLLINS	1	32.0	15.8	10.4	12.0	0.2	890	39	434	1,458	198	144	1,800	15,000	0	0	182	10,000	0	0	25,182		
368	05	ARMY	HIGH ALPHA AERO	BALT	7.3	75	F. KEENEY	1	64.0	46.7	25.4	12.0	4.3	2,877	129	3,769	2,754	374	272	3,400	29,000	0	0	429	30,000	0	0	59,429		
372	09	ASD	F-15/AIN-7F	BALT	7.7	75	R. MEYER	1	32.0	19.6	4.9	11.0	1.4	545	18	81	1,296	176	128	1,600	13,000	0	0	138	8,000	0	0	19,138		
367	02	ASD	ADM-34R (S)	BALT	8.2	75	C. RIDDLE	1	48.0	46.2	19.1	1.6	0.2	1,487	120	986	2,268	308	224	2,800	24,052	2,122	0	396	28,296	0	0	54,866		
375	26	AFDIL	I-24C	BALT	9.4	75	E. WASHINGTON	1	16.0	11.0	5.6	5.0	0.0	670	31	375	1,134	154	112	1,400	12,000	0	0	138	7,000	0	0	19,138		
347	45	AFDIL	TACT WINGSDOM	BALT	9.6	75	F. KEENEY	1	80.0	65.5	28.6	9.8	4.7	3,720	222	2,715	3,240	440	320	4,000	35,000	0	0	560	42,000	0	0	77,560		
381	29	AEDC	RF-4C/10 DES CODE	BALT	10.1	75	R. MEYER	1	64.0	48.3	25.7	11.0	4.7	2,885	171	2,070	2,511	341	248	3,100	25,000	0	0	407	31,000	0	0	56,407		
358	93	AFDIL	ADV TECH WING	BALT	10.2	75	J. SPURLIN	1	208.0	207.3	69.1	0.0	0.4	9,635	430	5,519	6,966	946	688	8,600	73,669	1,865	0	1,513	132,418	0	0	209,465		
380	22	ASD	F-16	BALT	10.5	75	M. WHITE	1	176.0	153.7	75.8	12.0	6.3	8,399	493	9,864	3,895	529	385	4,809	42,744	0	0	851	74,209	0	0	117,804		

## TUNNEL 16T TEST STATISTICS

		DOWN										MANHOURS				COST (\$)							
FY	TYPE	ENTR	DSH	UDN	ACH	I/R	AEDC	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*	
75	BALT	15	1,136.0	997.7	464.1	78.9	50.1	57,823	2,563	40,147	45,606	6,193	4,504	56,304	484,005	6,987	0	7,798	580,903	0	0	1,079,693	
76	BALT	10	1,208.2	1,133.4	508.4	45.5	60.3	60,147	2,783	56,588	37,978	5,158	3,751	46,887	432,904	5,386	0	10,777	1,041,217	0	0	1,489,984	
77	BALT	5	521.0	457.4	218.2	35.0	28.6	27,964	1,340	19,530	29,687	4,032	2,932	36,650	342,660	6,250	0	5,816	447,530	0	0	805,256	
77	BALT	19	1,664.0	1,321.2	601.4	229.4	112.8	70,027	3,145	45,885	65,460	8,890	6,465	80,815	834,013	10,137	0	13,072	952,753	0	0	1,809,975	
78	BALT	10	846.2	521.5	322.5	209.4	53.3	38,262	1,923	31,661	32,724	4,444	3,332	40,400	466,000	3,000	0	7,529	566,300	0	0	1,042,329	
79	BALT	9	554.2	395.3	277.2	127.9	20.1	29,859	1,769	35,303	28,735	3,905	2,840	35,500	435,100	4,000	0	11,349	1,116,900	0	0	1,571,349	
80	BALT	7	526.7	411.7	252.2	74.5	26.4	27,866	2,440	41,570	25,969	3,527	2,565	32,060	467,200	23,493	0	12,937	1,287,690	57,683	0	1,858,912	
81	BALT	7	400.7	261.4	144.7	133.5	42.6	17,075	1,369	21,144	29,540	2,120	730	32,390	512,230	12,862	0	12,314	1,167,940	75,779	0	1,780,816	
82	BALT	5	468.7	318.3	189.3	33.5	90.3	20,255	1,670	28,015	24,188	948	1,131	26,267	448,668	157	0	2,776	1,504,530	77,099	52,324	2,085,574	
83	BALT	7	387.1	275.3	144.5	78.1	27.7	15,527	1,710	26,215	26,644	1,151	2,040	29,935	534,302	1,253	0	4,976	1,145,602	99,495	110,213	1,895,048	
84	BALT	7	385.7	235.1	134.5	93.7	46.2	12,510	1,187	19,862	16,185	2,315	3,103	21,603	408,735	2,574	858	8,946	922,414	37,326	90,822	1,471,775	
85	BALT	7	692.6	411.1	246.3	247.1	25.2	24,479	2,075	43,091	22,520	1,168	6,198	29,857	602,900	1,707	0	18,046	1,230,319	78,003	153,356	2,164,030	
86	BALT	1	79.0	35.4	11.6	43.6	0.0	970	162	1,584	2,845	408	247	3,500	89,606	12,475	0	1,253	28,220	1,842	21,198	155,192	

b. Database Criteria, Output 1, and 2

Figure 3. Continued

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\M /XMMENU* <----- INVOKES MENU

MENU CERASE      DERASE      POUTPUT      INPUTP      FYPRMT      QUIT
  CRITERIA ERASE  OUTPUT ERASE  PRINT OUTPUT  PRINT INPUT  PRINT FY DATA  READY MODE
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  /REA7.AD7*/XGBM19* <----- CRITERIA ERASE

  /REA16.AD180*/XGBM19* <----- OUTPUT ERASE

  /P*RA1.AD180*ASPQ <----- PRINT OUTPUT

  /P*RA1.BR612*ASPQ <----- PRINT INPUT

  /P*RH197.AD215*ASPQ <----- PRINT FY DATA

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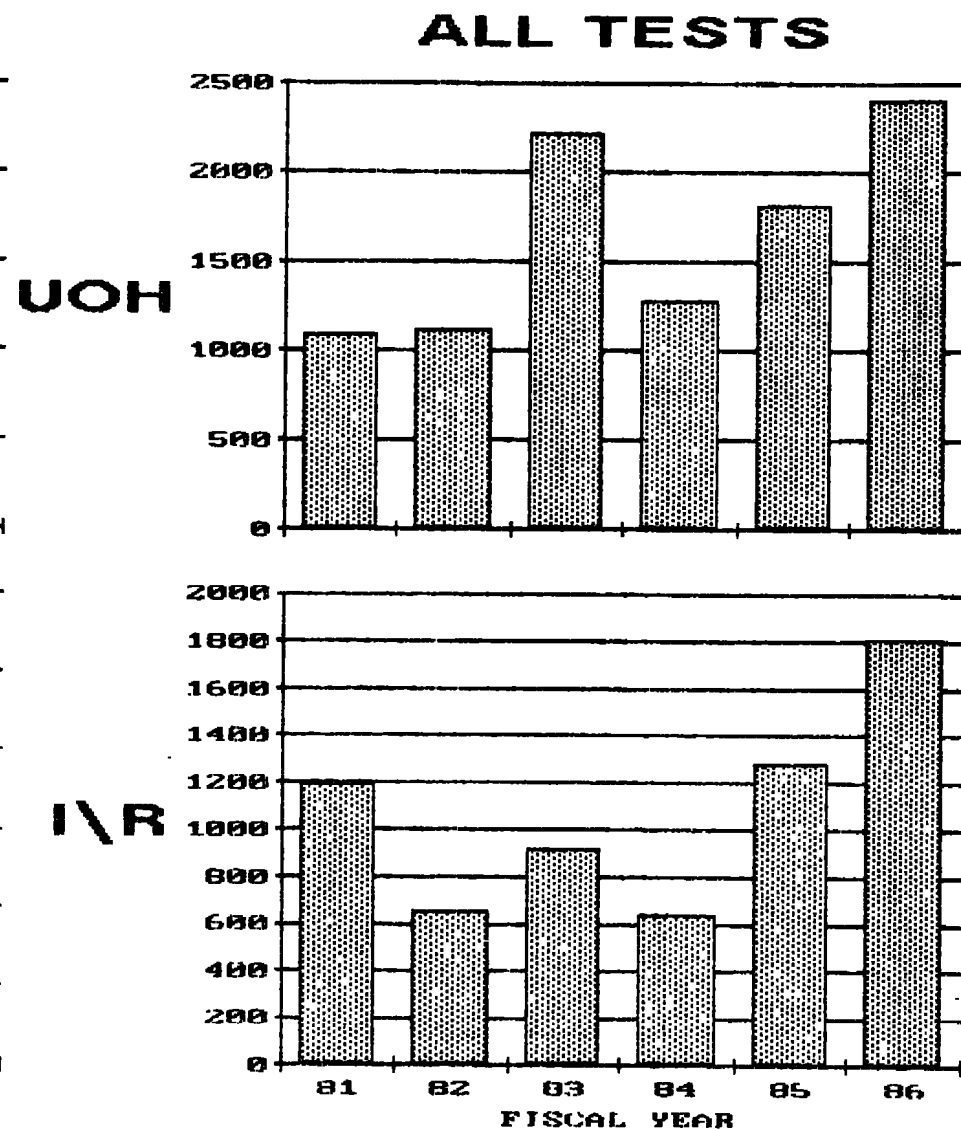
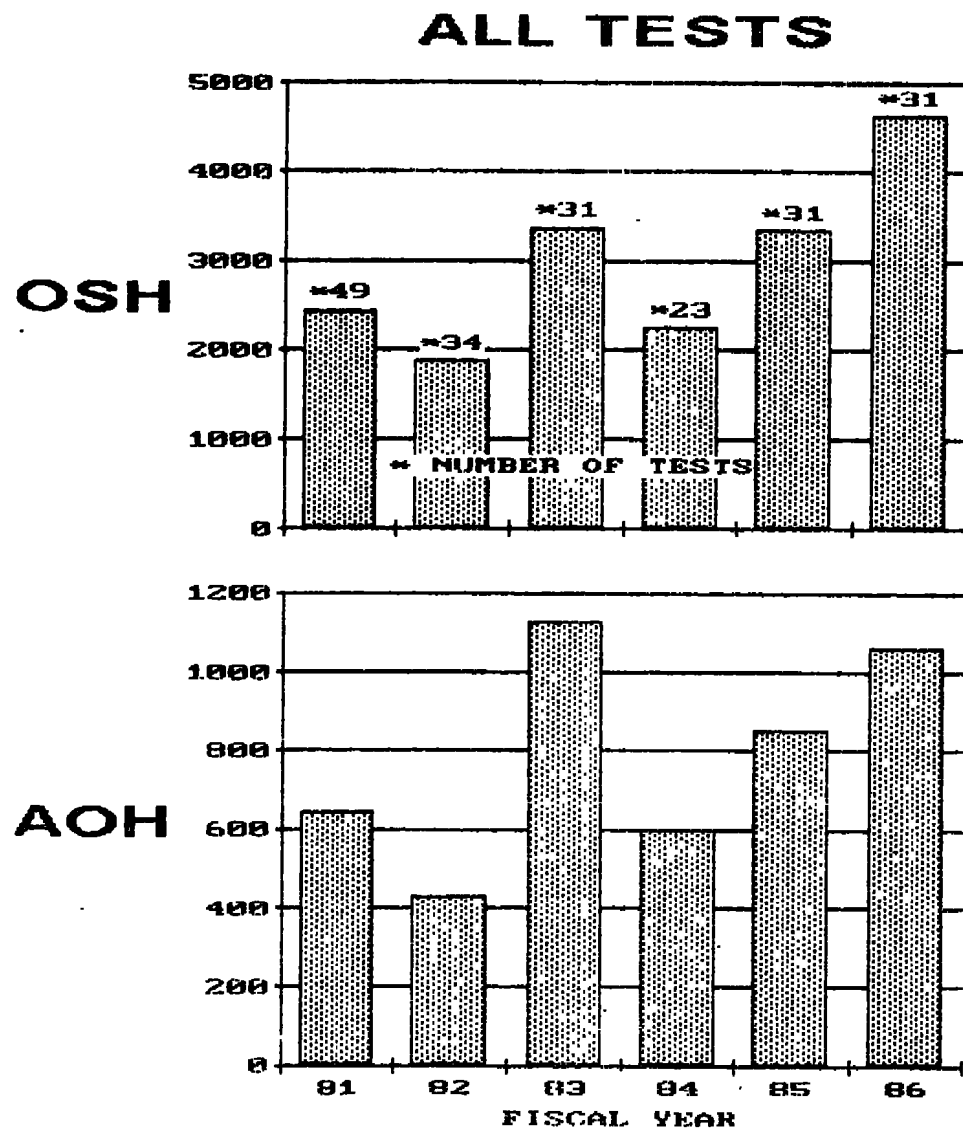
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### c. Database Macros

Figure 3. Concluded



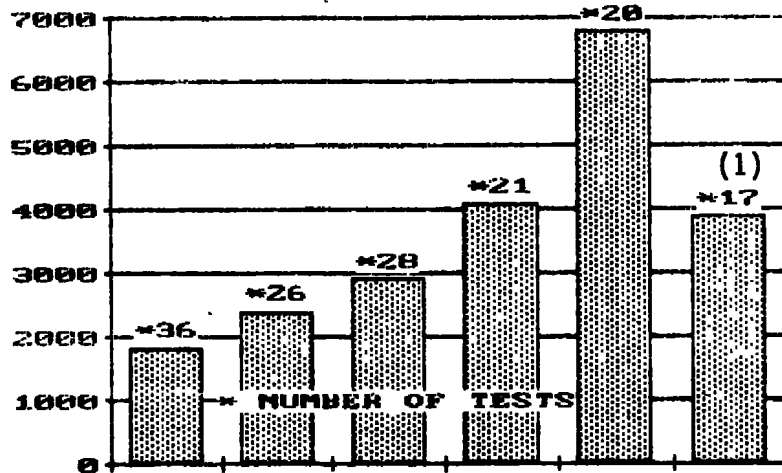


a. 4T

Figure 4. Level of Effort

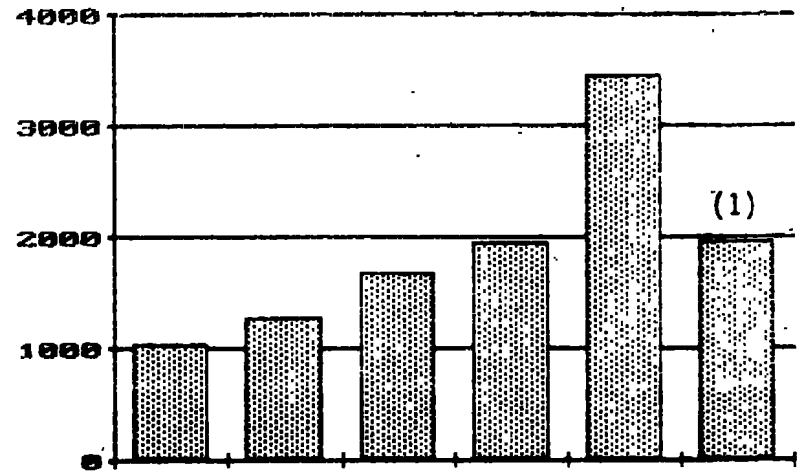
(1) 16T down for 14 weeks for flow quality improvements.

### ALL TESTS

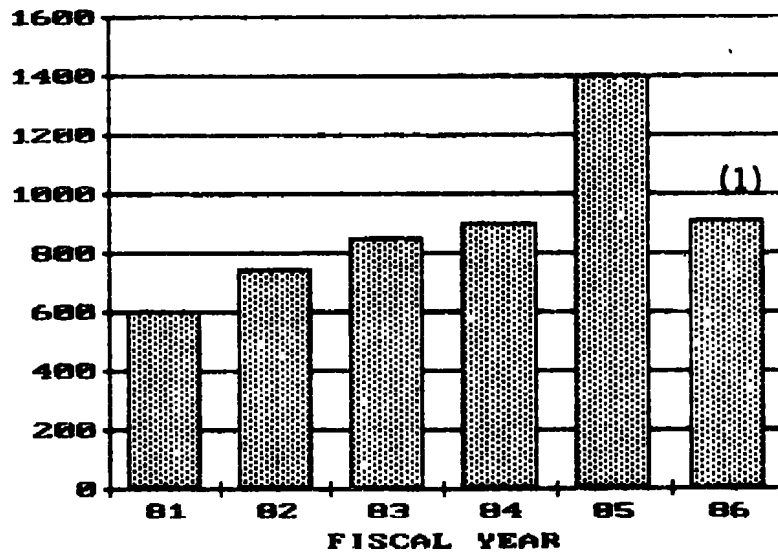


OSH

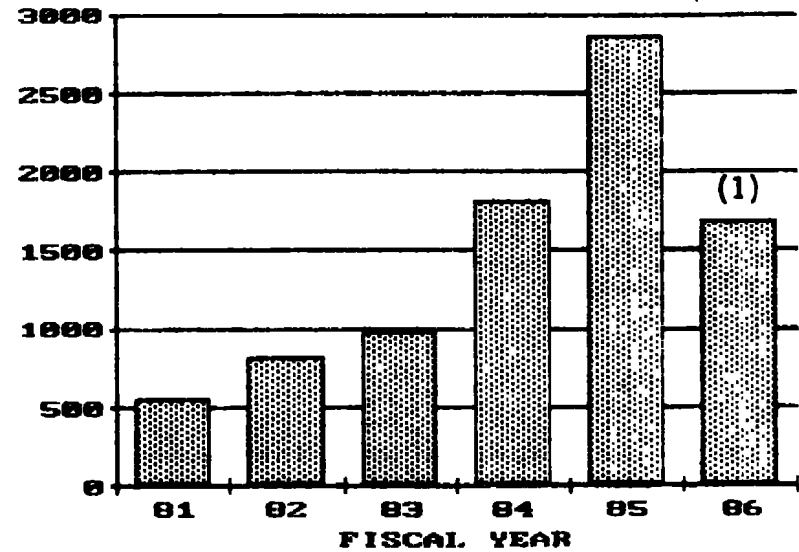
### ALL TESTS



UOH

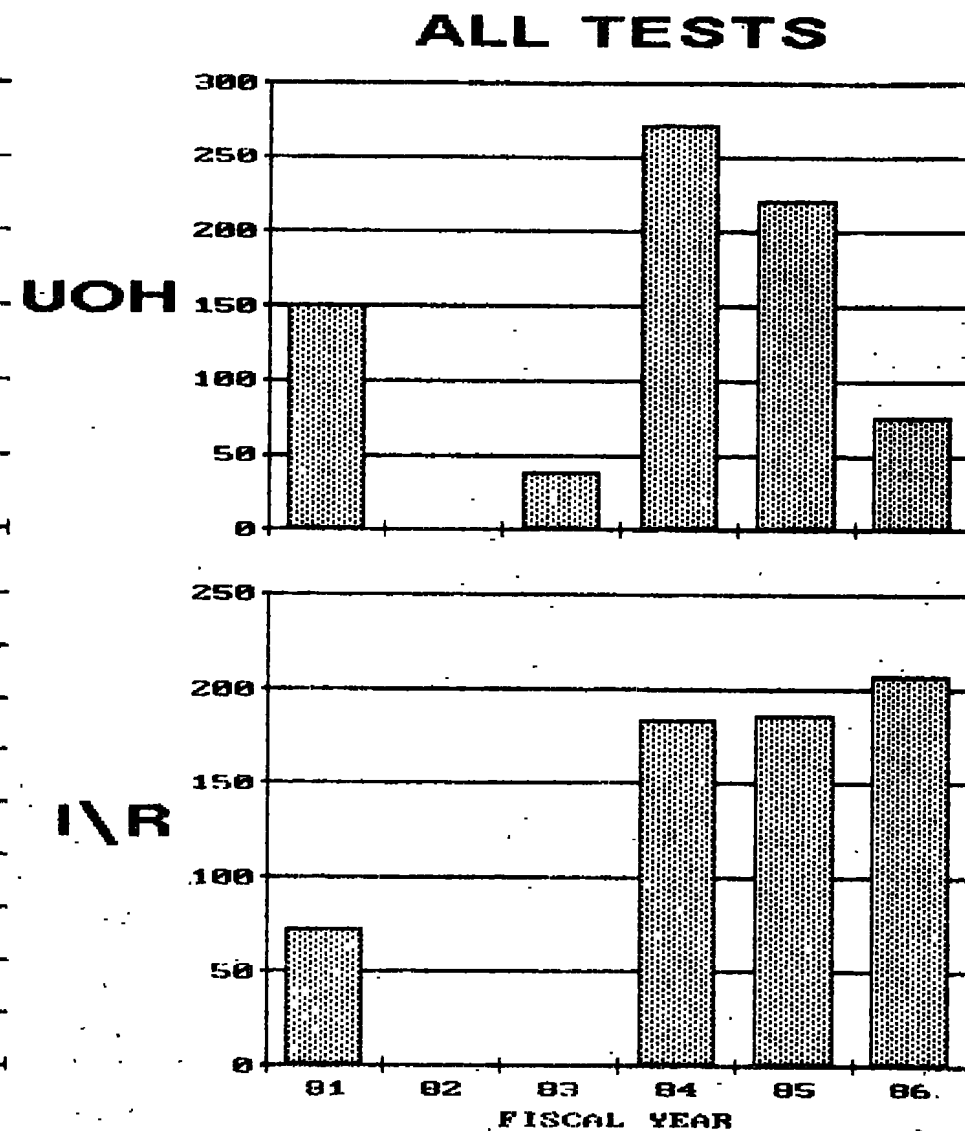
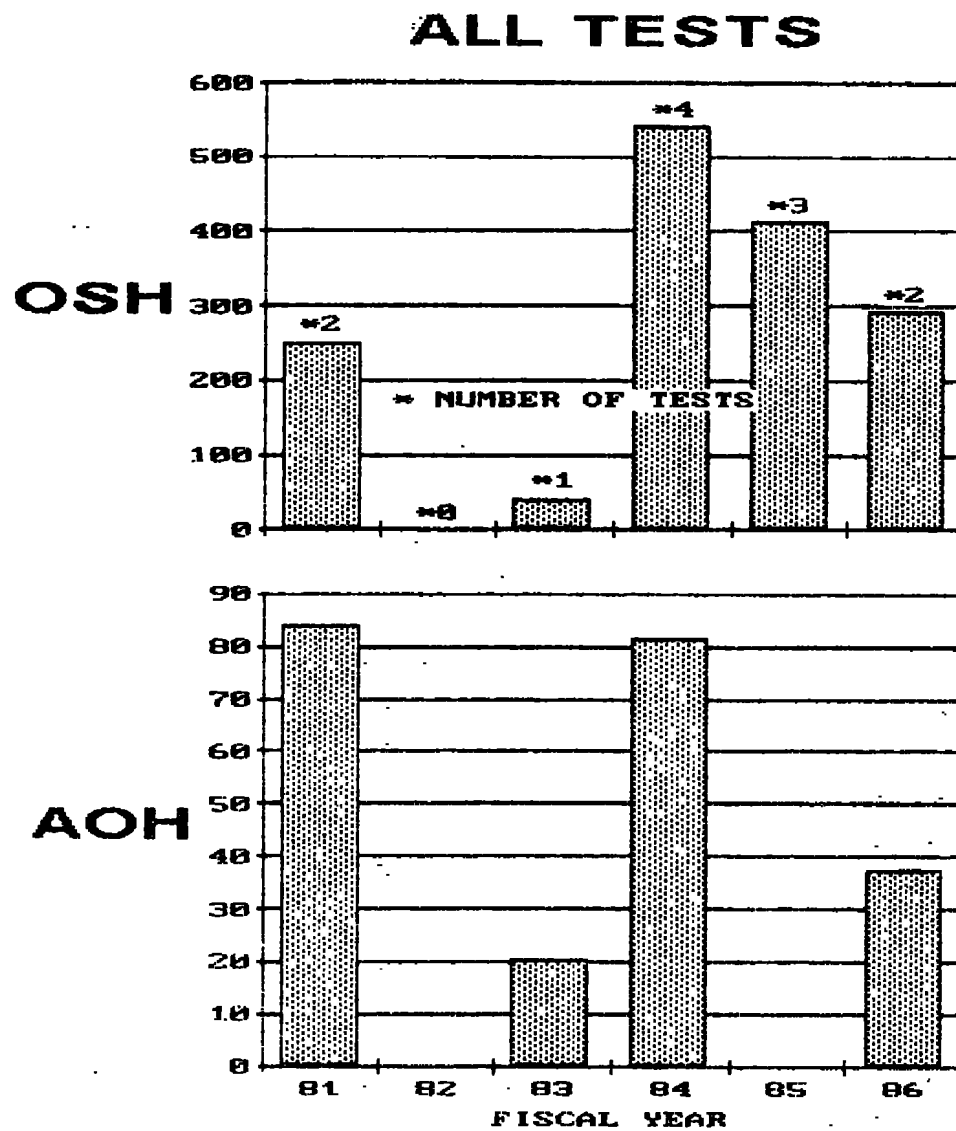


AOH



I/R

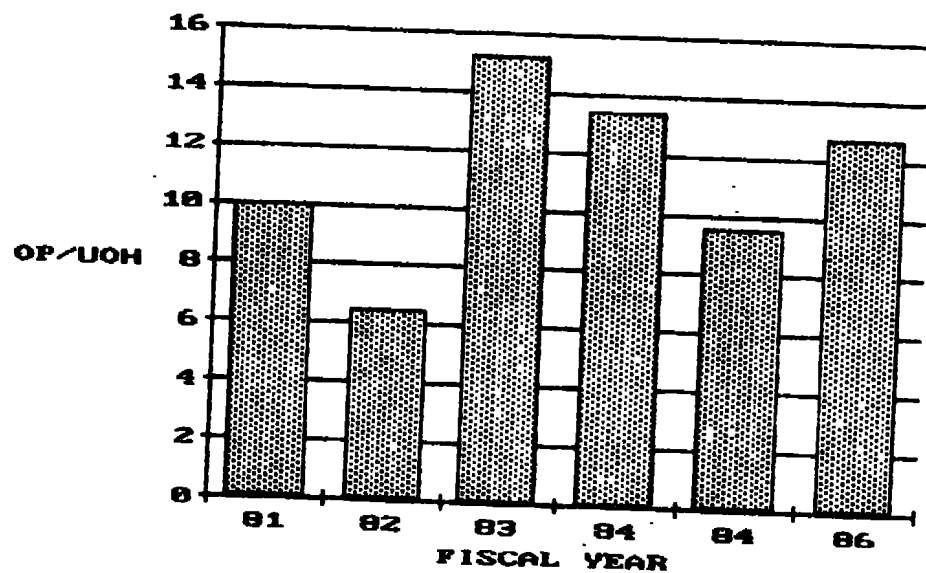
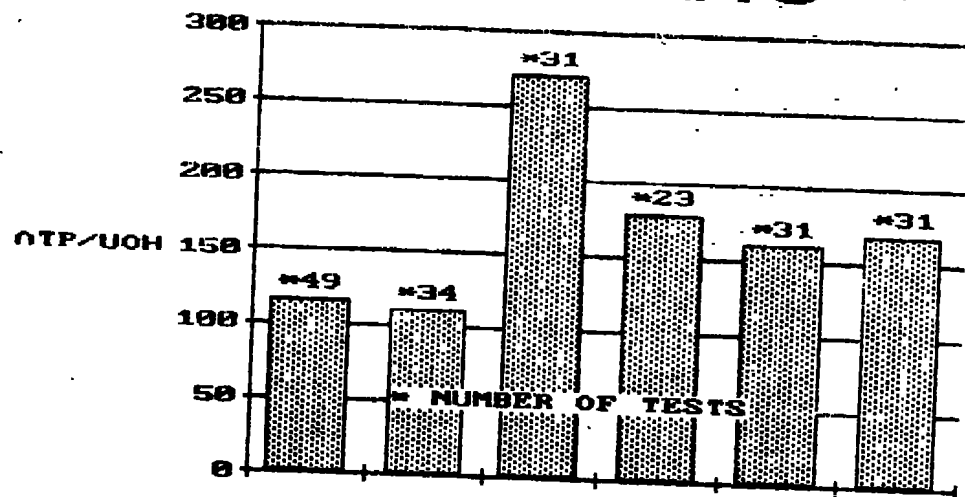
b. 16T  
Figure 4. Continued



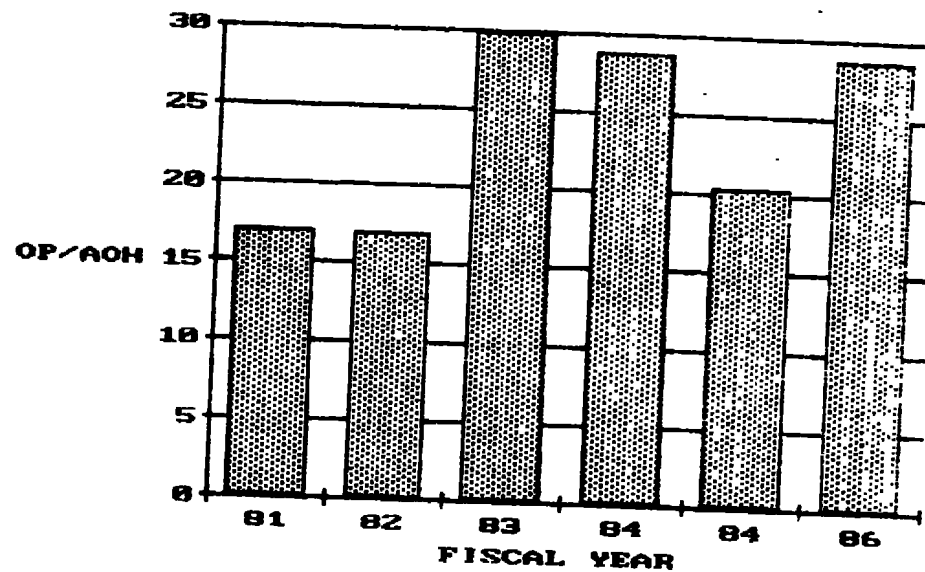
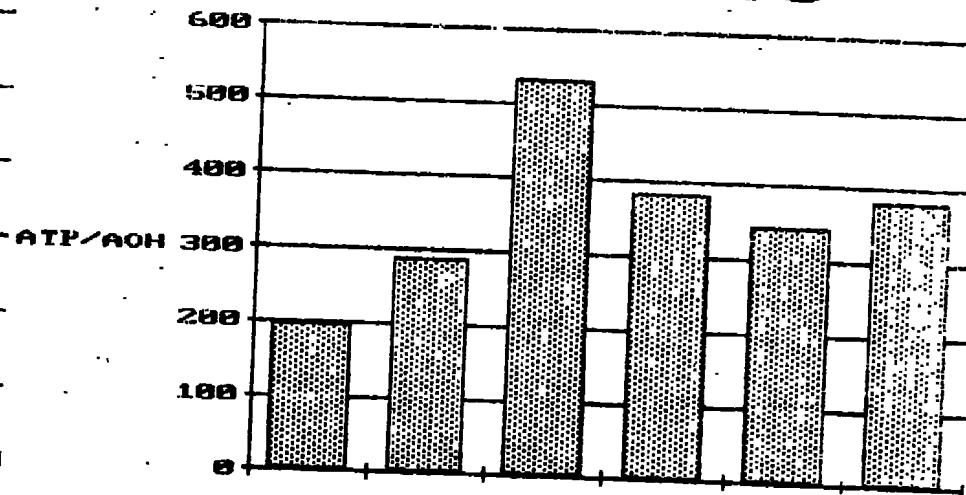
c. 16S

Figure 4. Concluded

## ALL TESTS



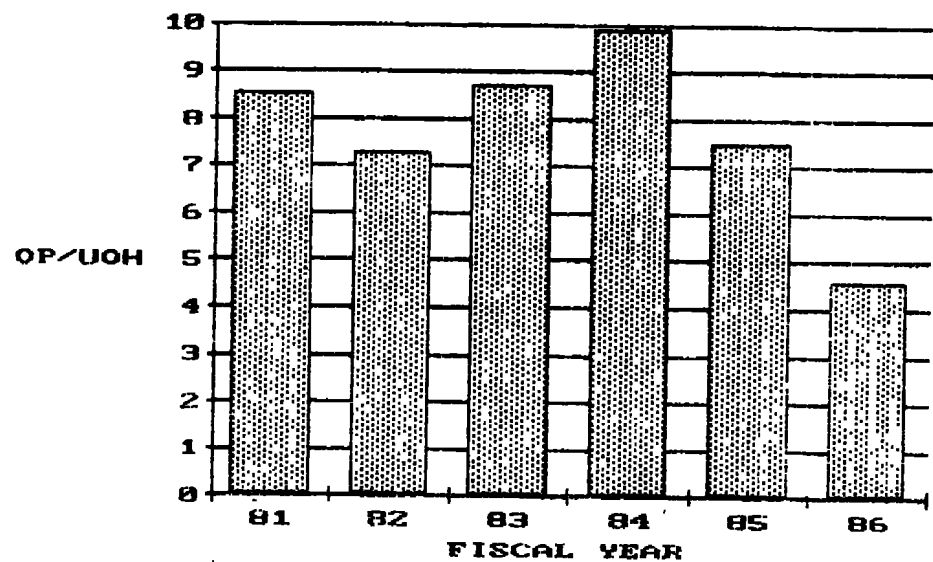
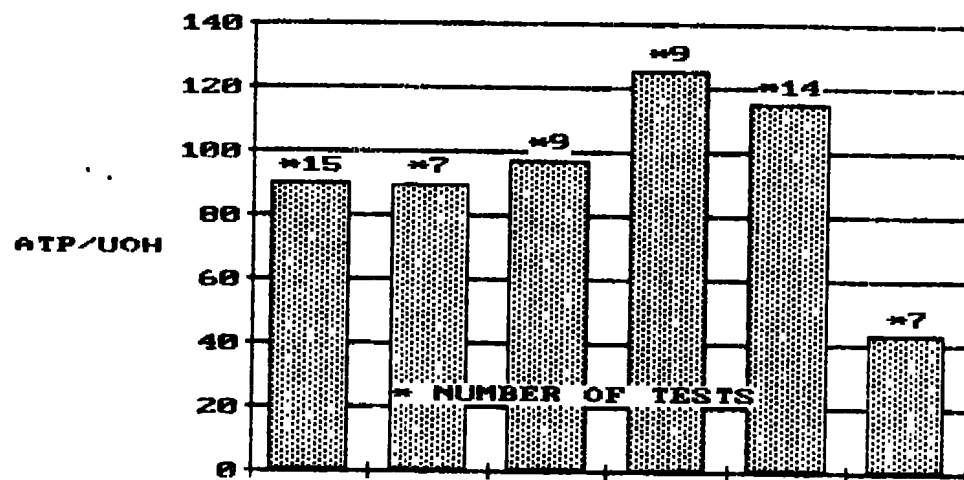
## ALL TESTS



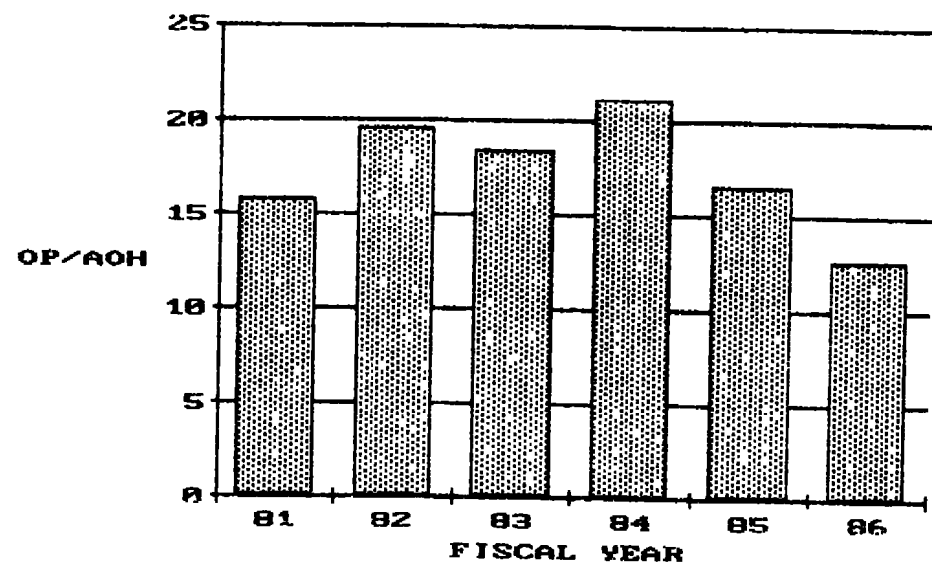
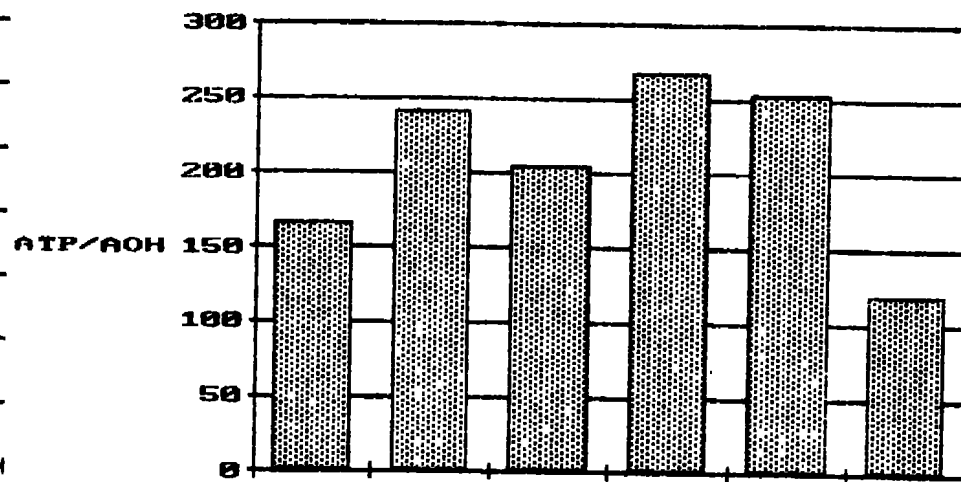
a. All Tests

Figure 5. Productivity Statistics for Tunnel 4T

# BALC

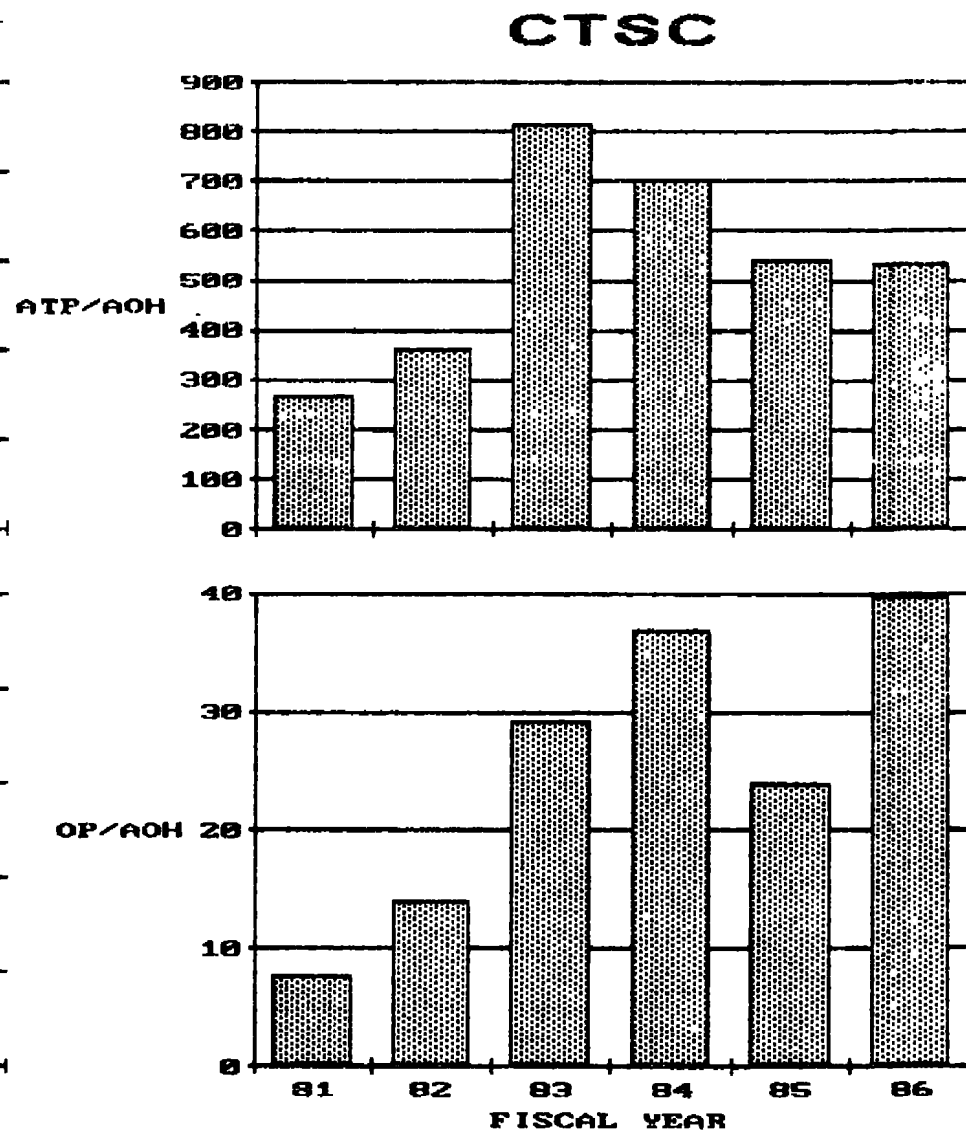
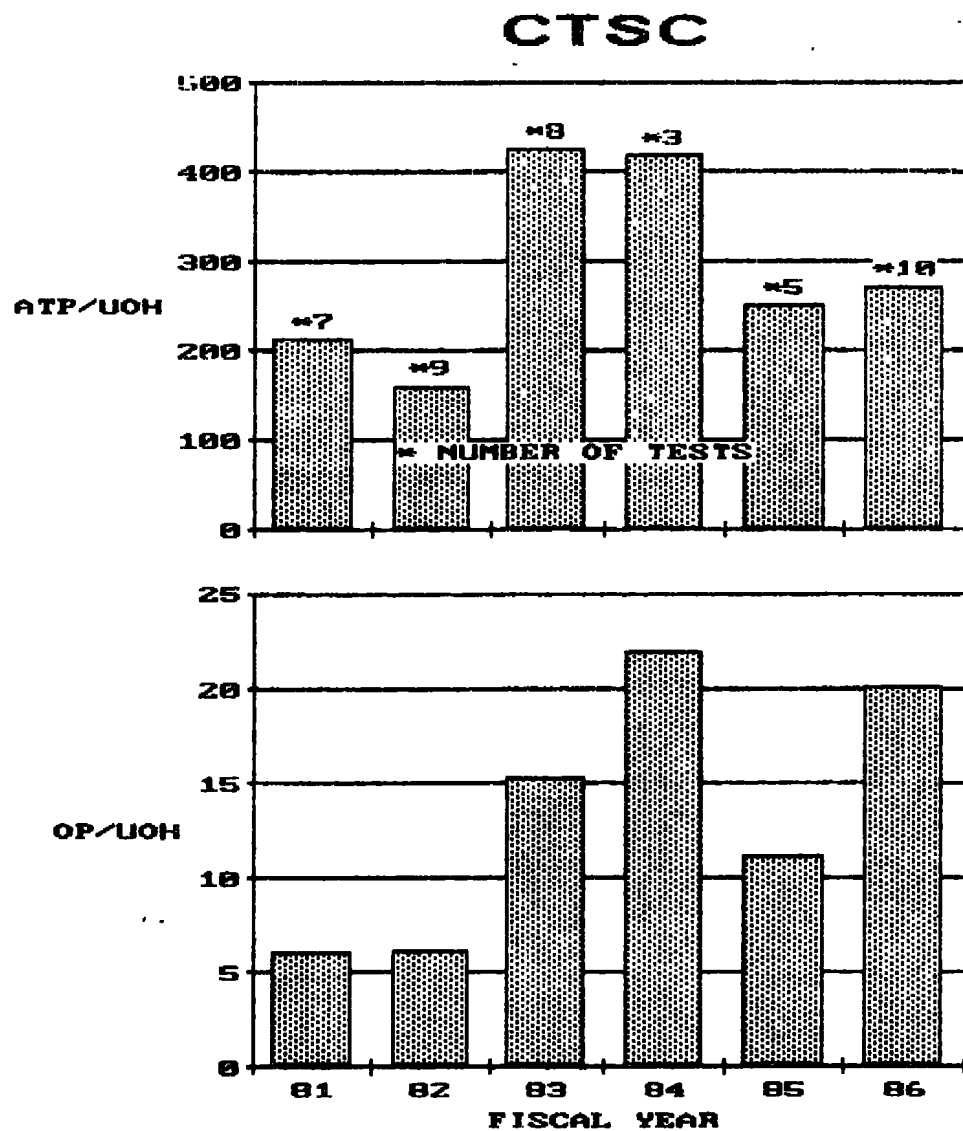


# BALC



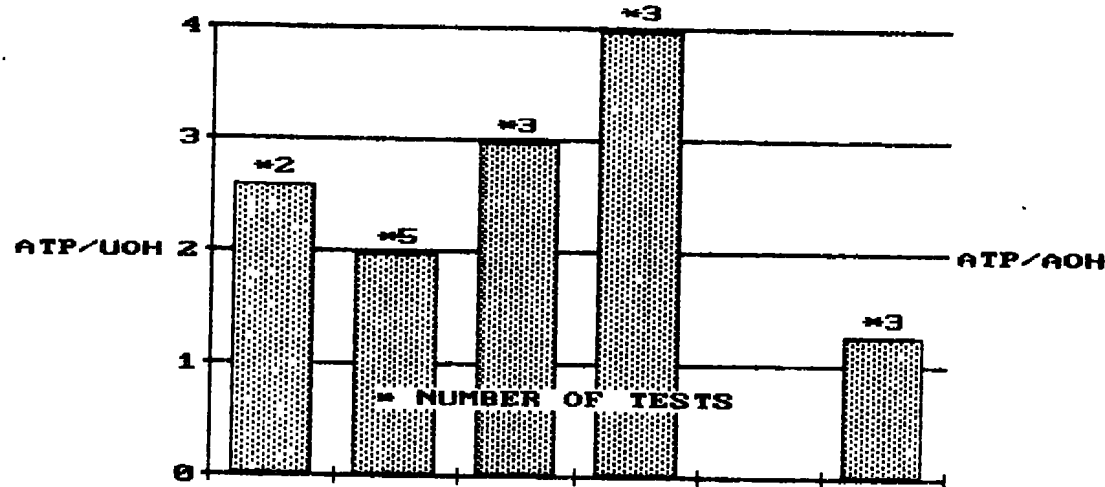
b. BALC

Figure 5. Continued

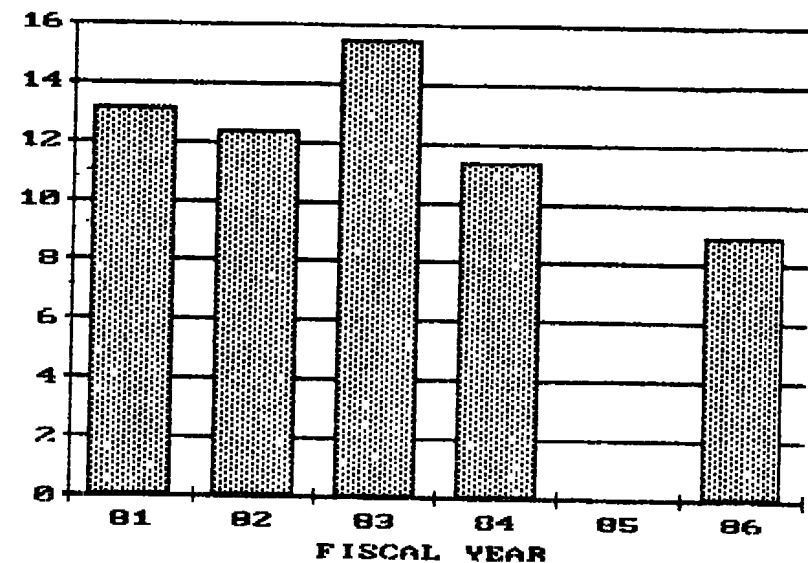
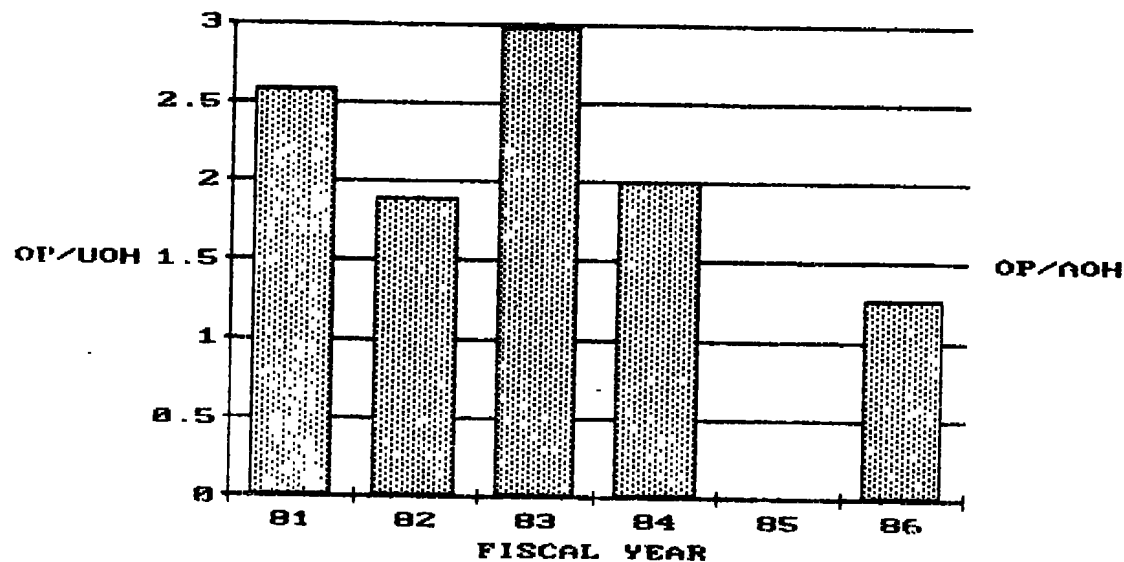
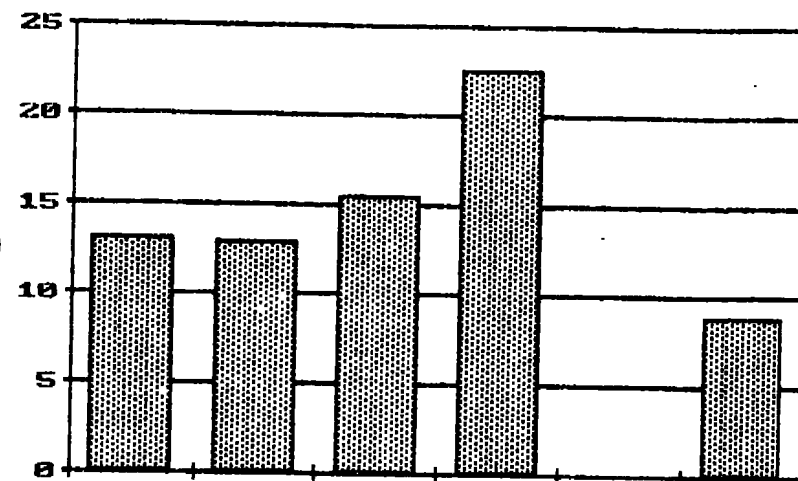


c. CTSC  
Figure 5. Continued

# DYDC



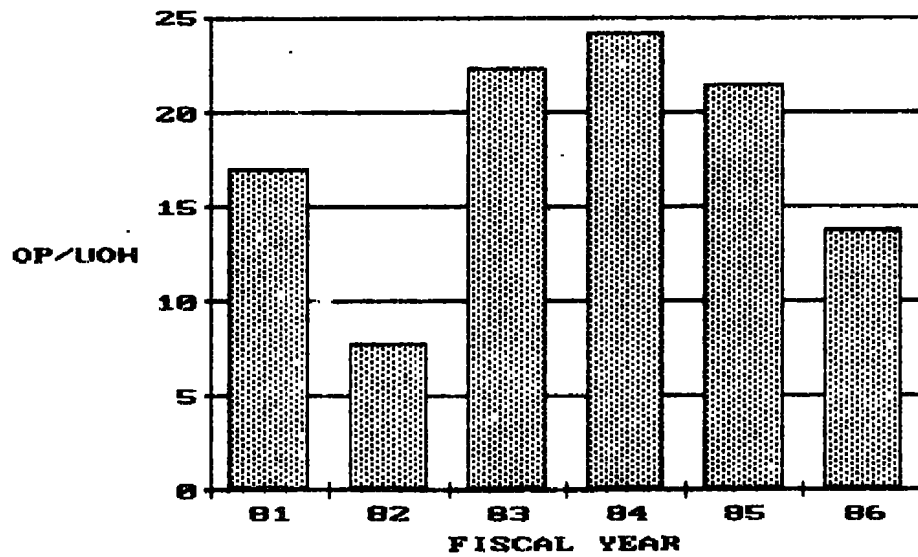
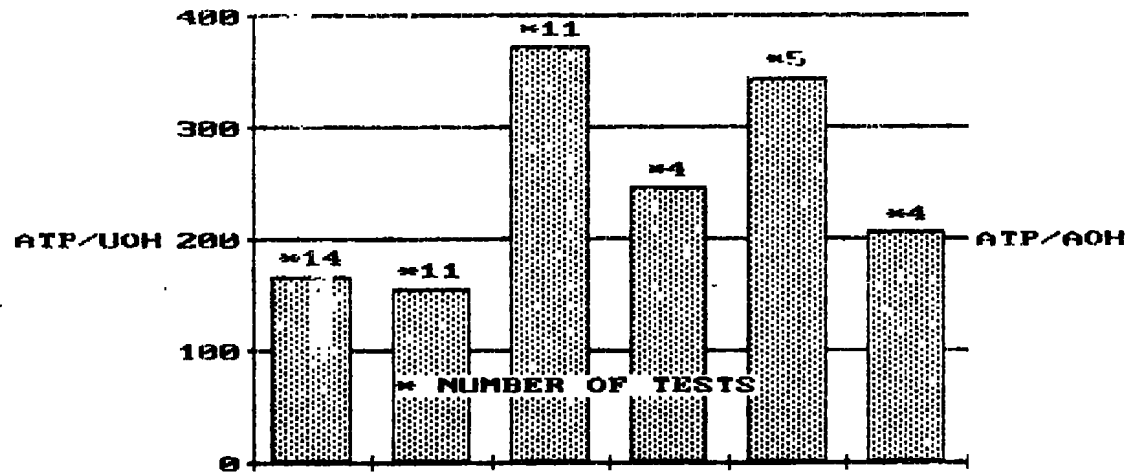
# DYDC



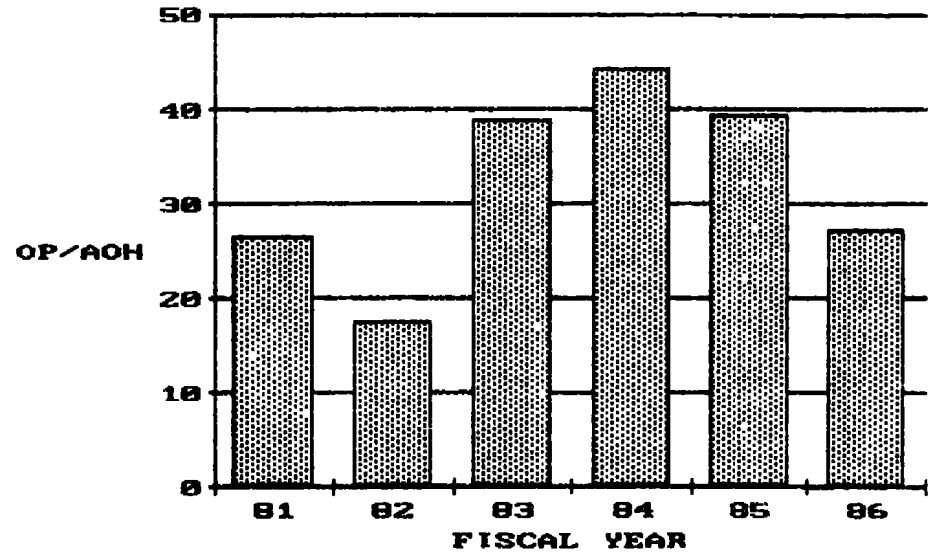
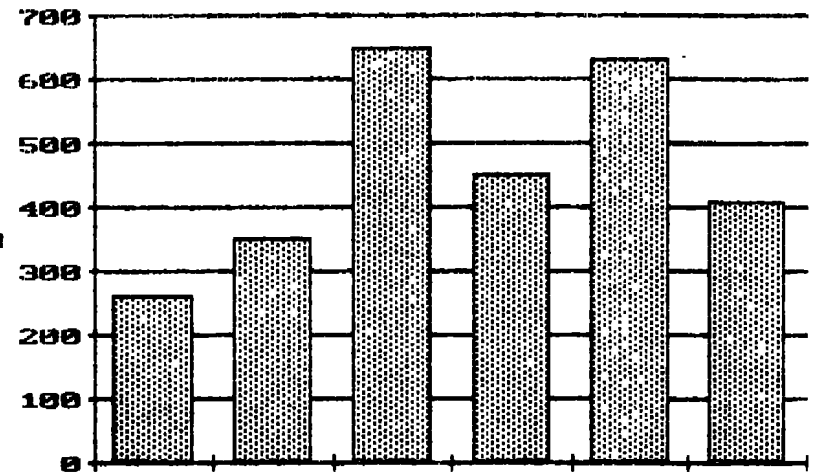
d. DYDC

Figure 5. Continued

## GRDC



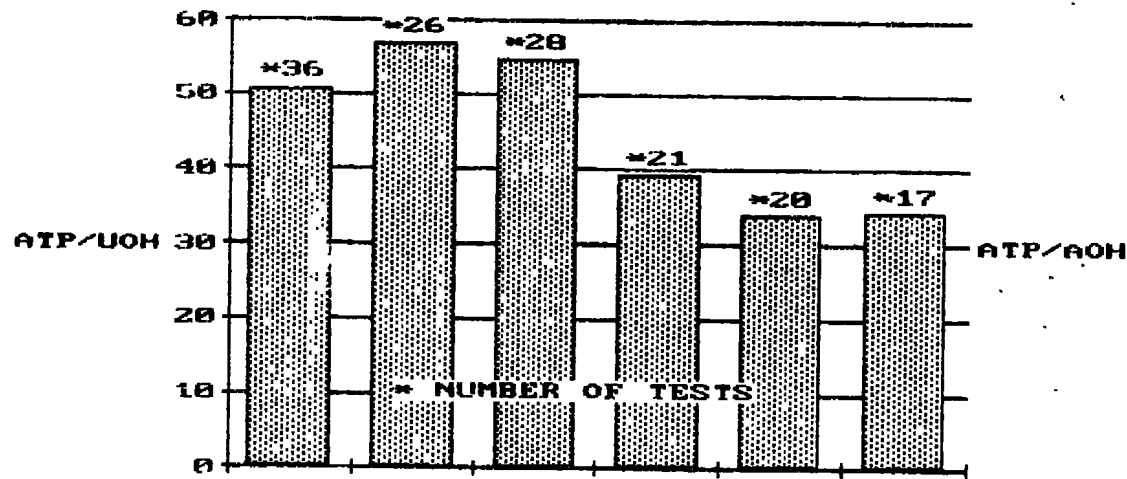
## GRDC



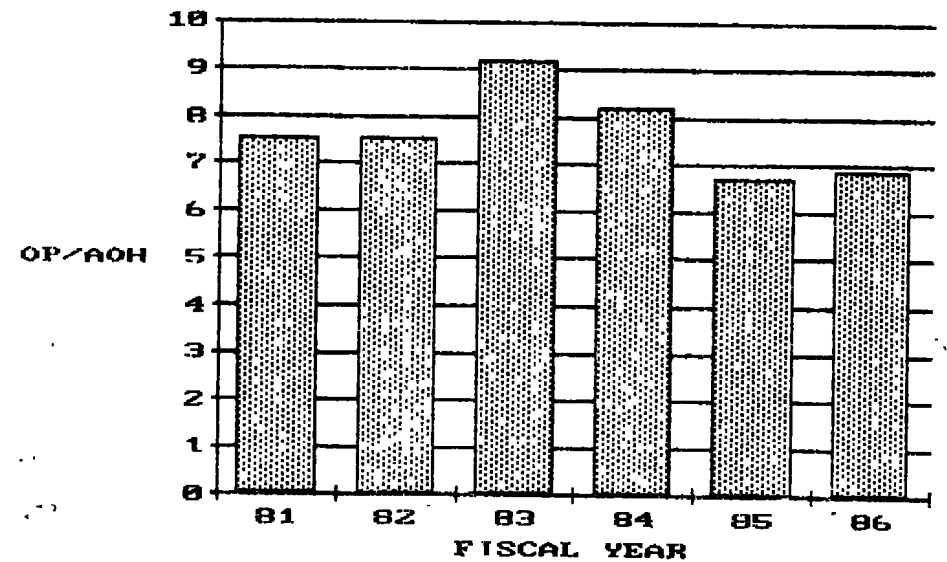
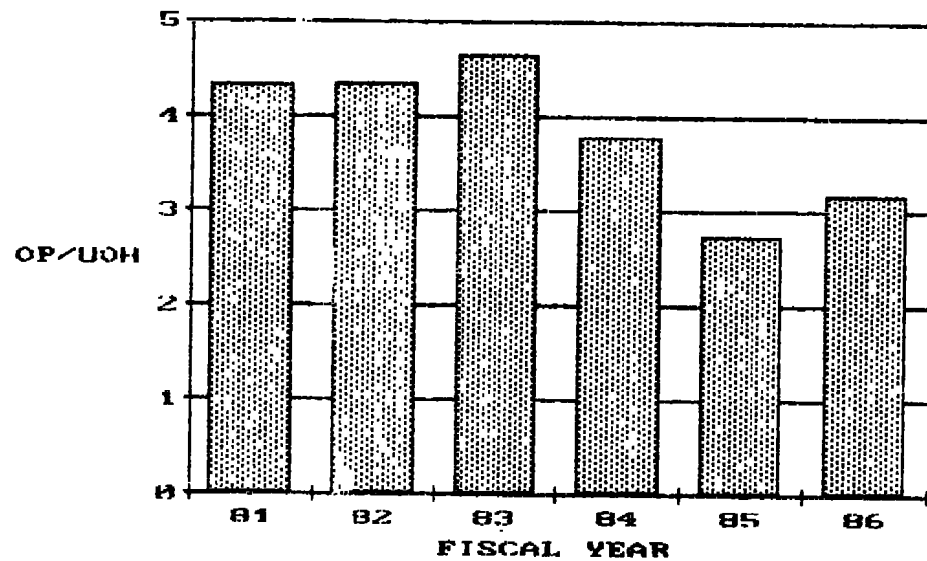
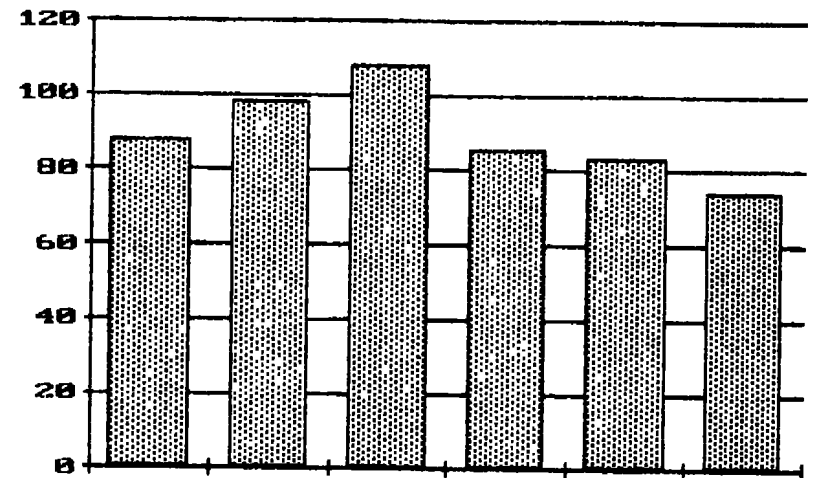
e. GRDC  
Figure 5. Concluded



## ALL TESTS



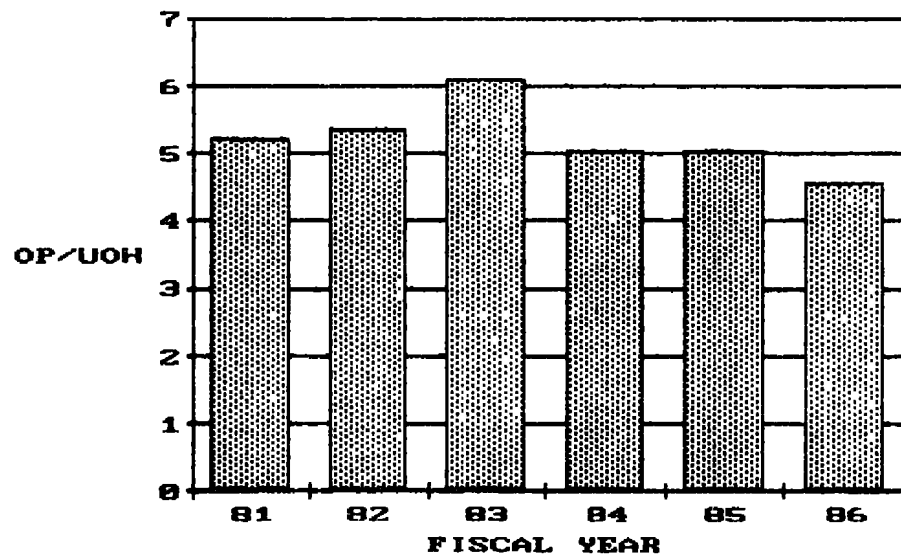
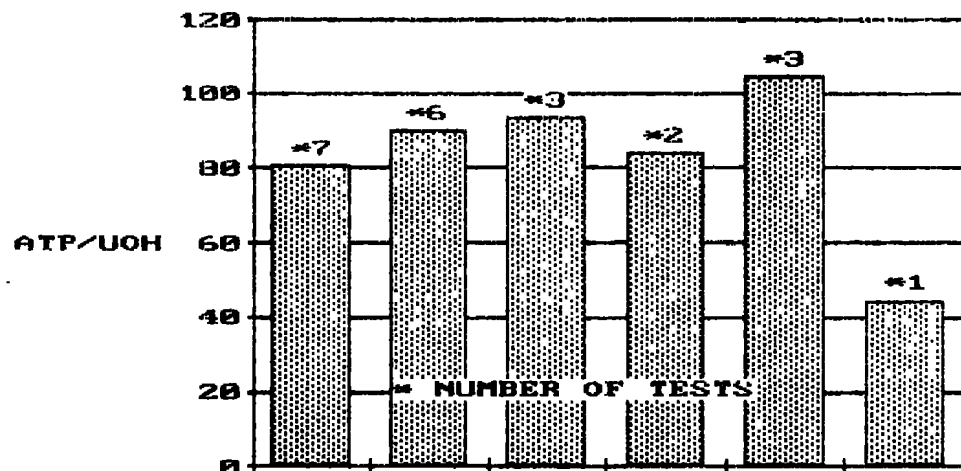
## ALL TESTS



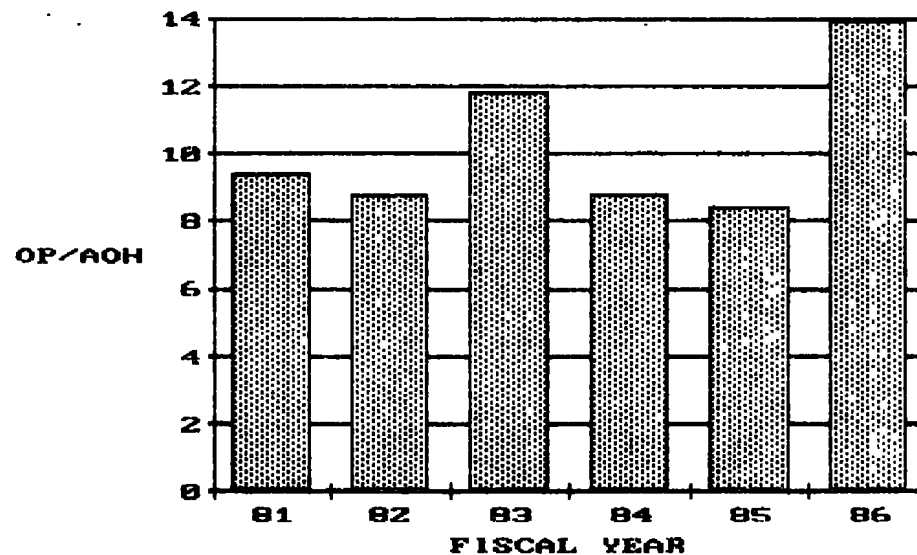
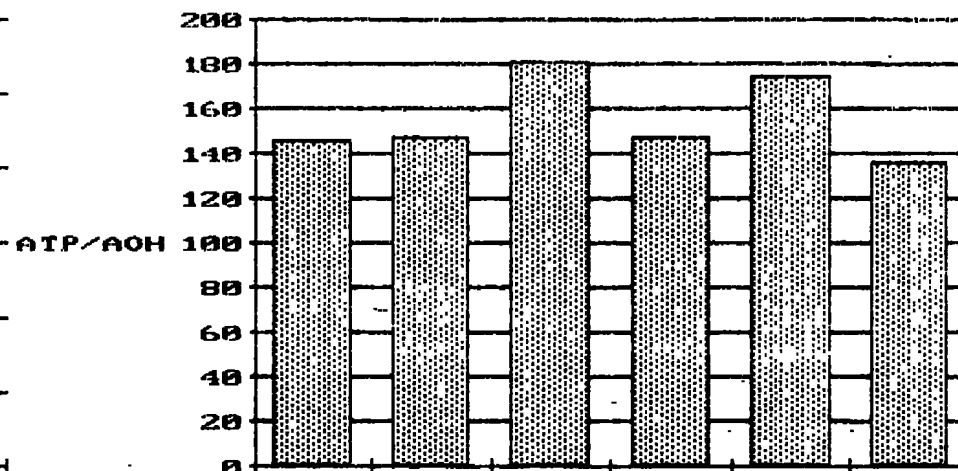
a. All Tests

Figure 6. Productivity Statistics for Tunnel 16T

# BALT



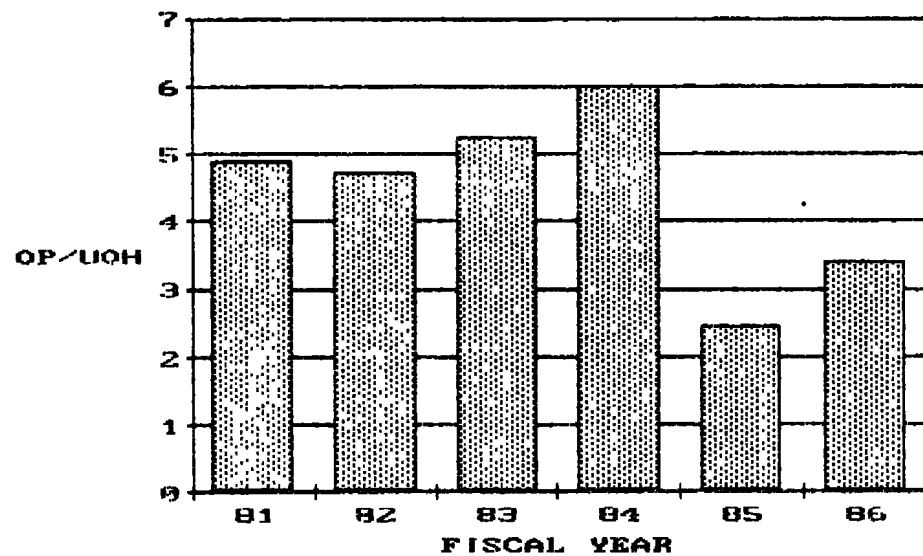
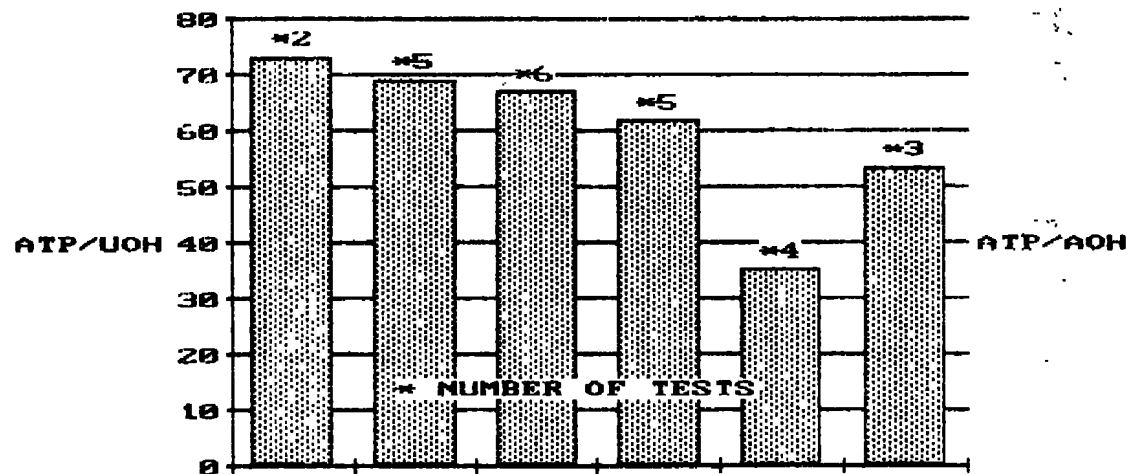
# BALT



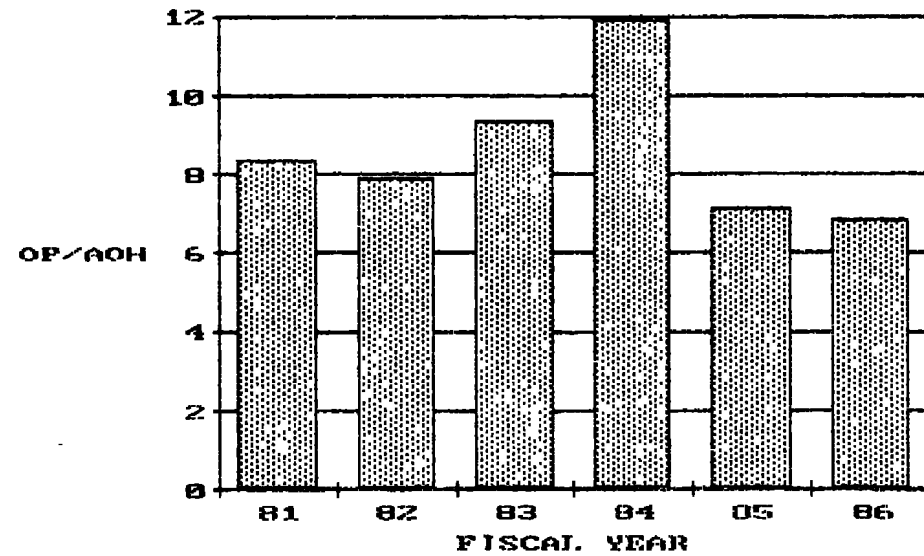
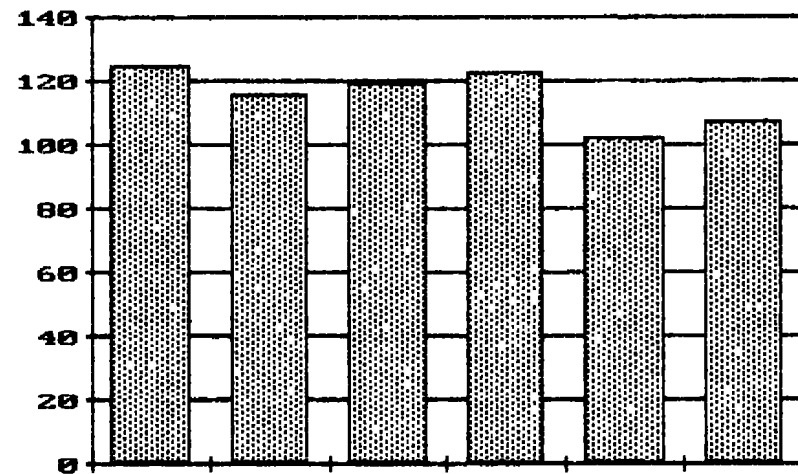
b. BALT

Figure 6. Continued

# BAPT



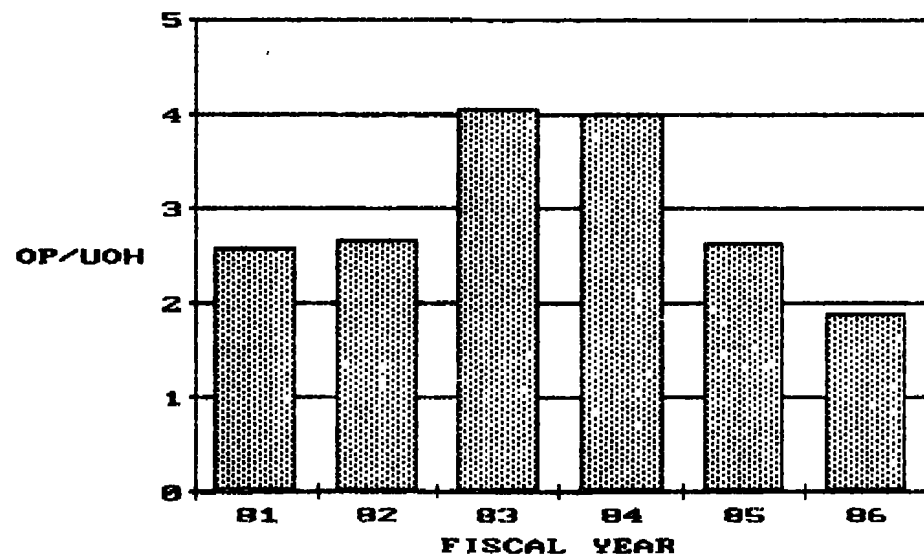
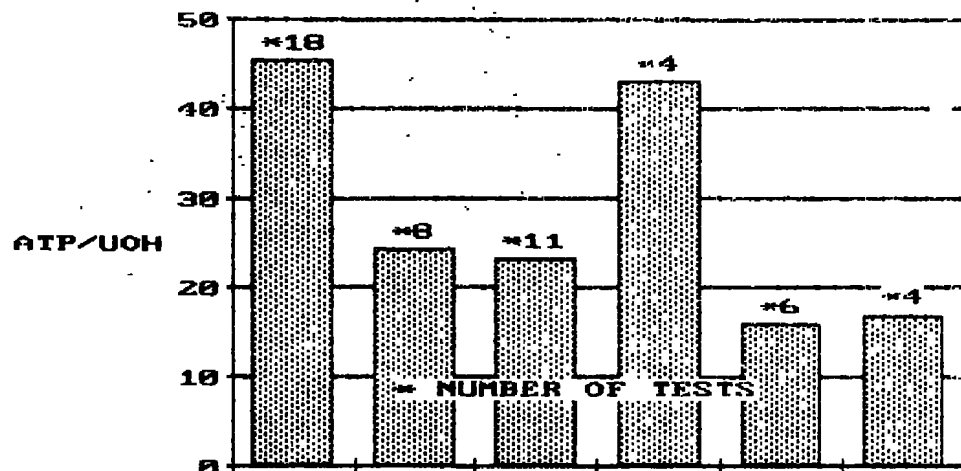
# BAPT



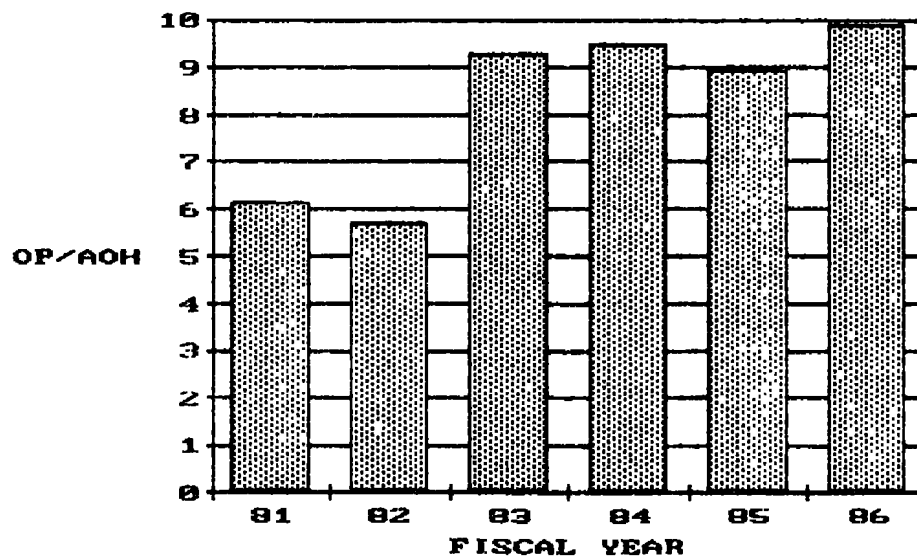
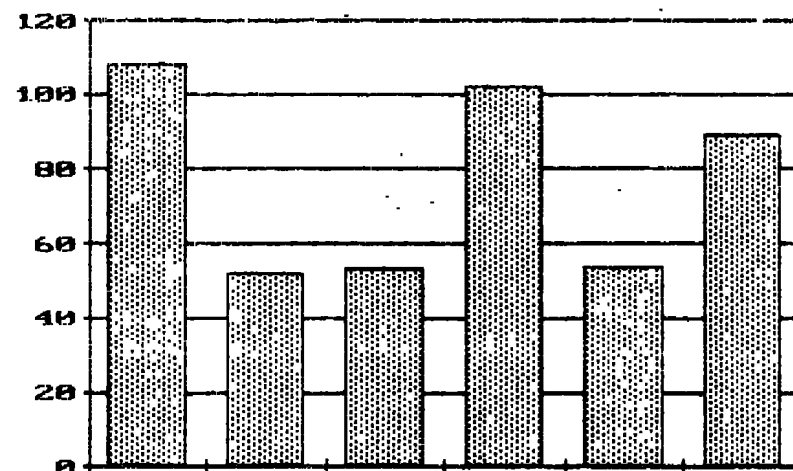
c. BAPT

Figure 6. Continued

# MIST

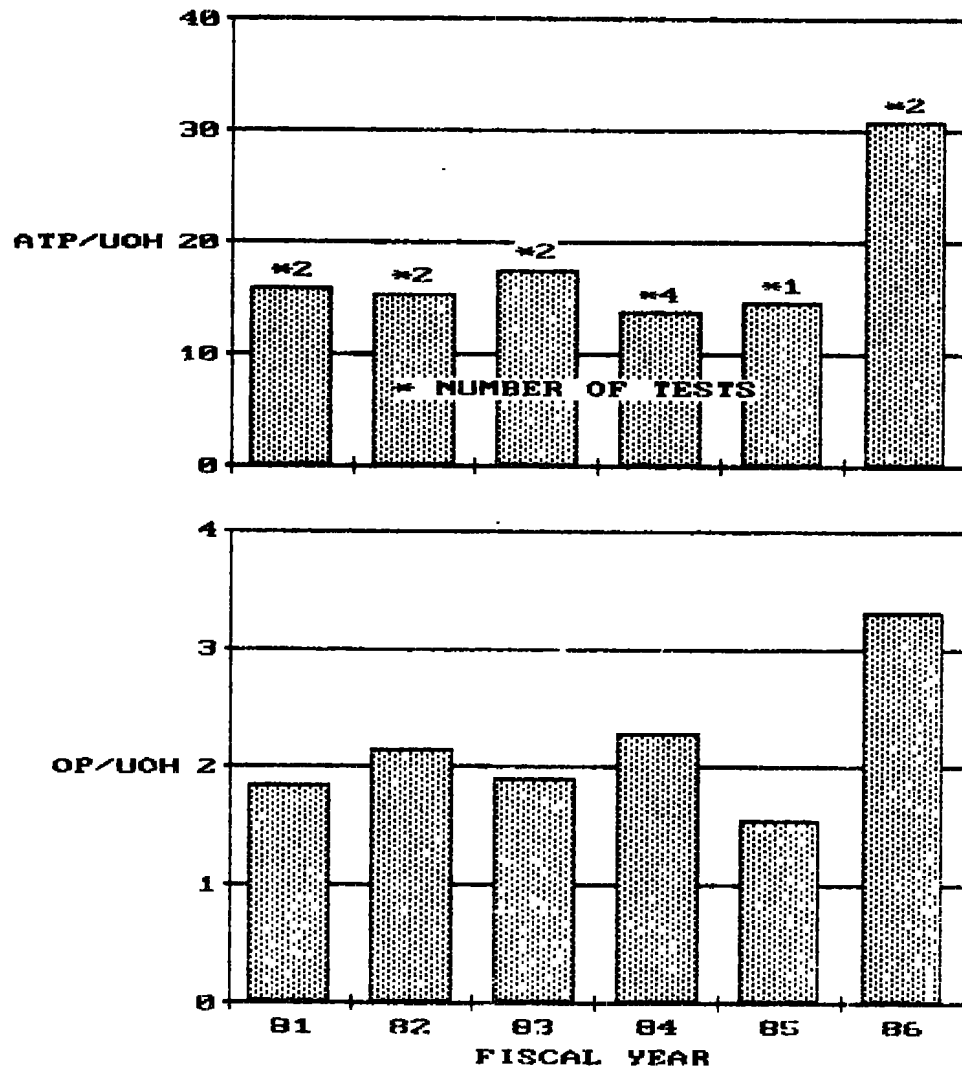


# MIST

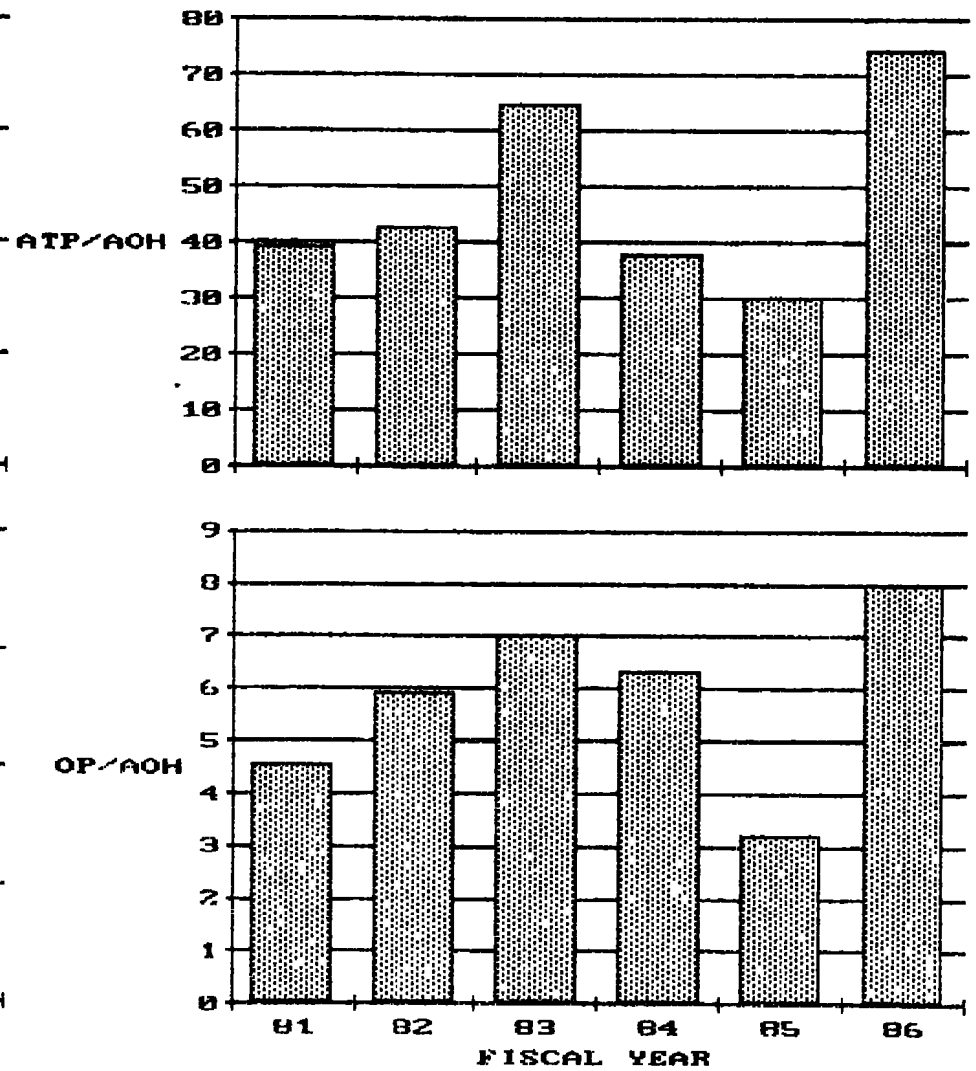


d. MIST  
Figure 6. Continued

# NABT



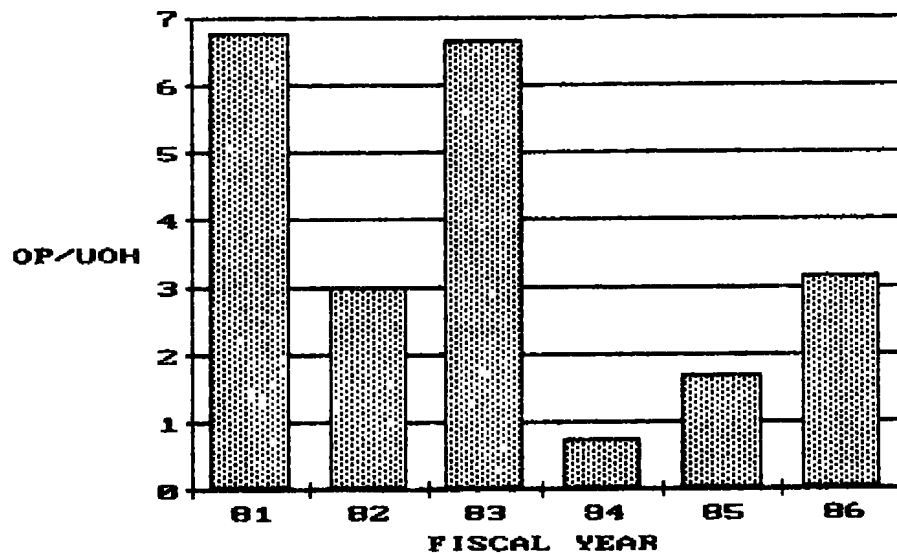
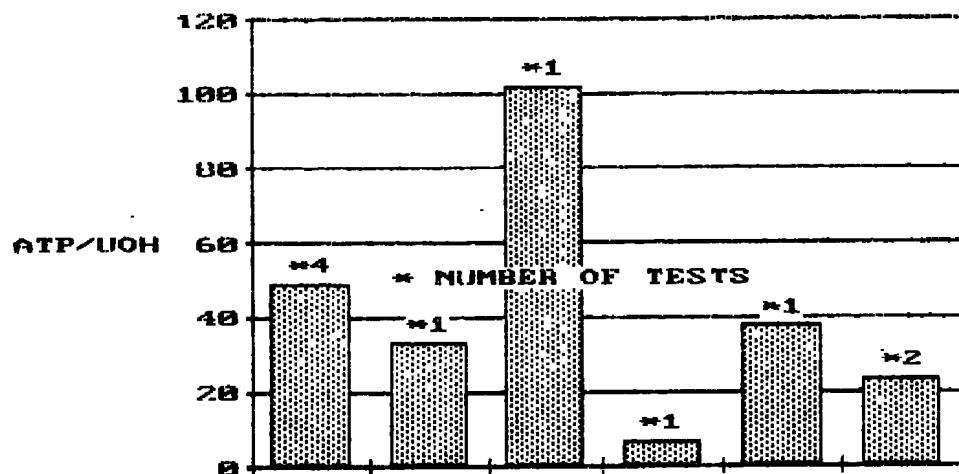
# NABT



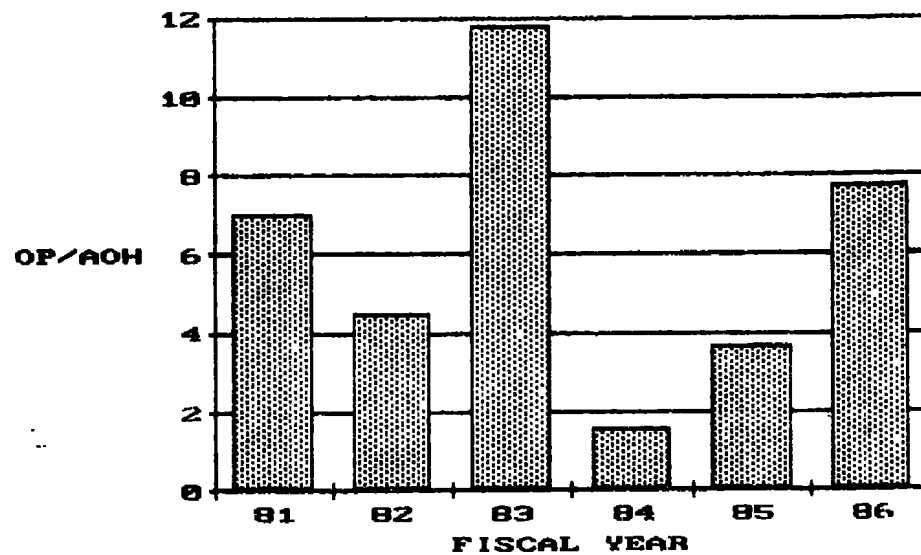
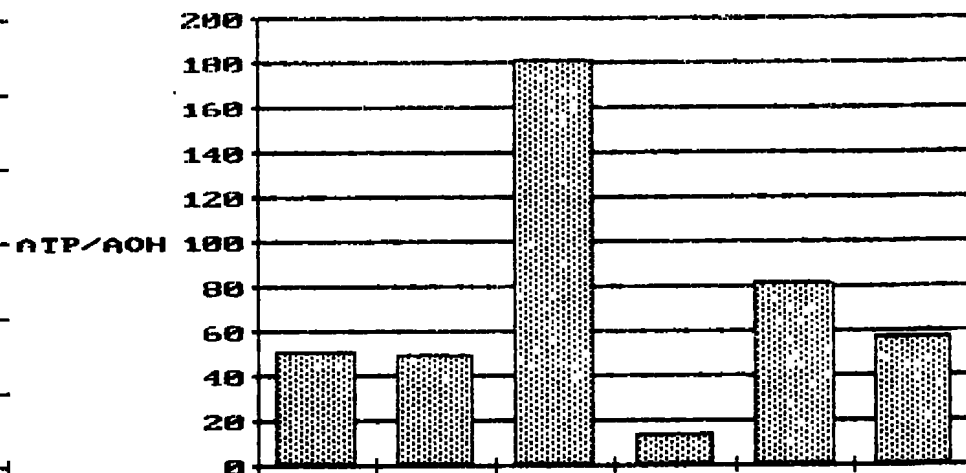
e. NABT

Figure 6. Continued

# PRST



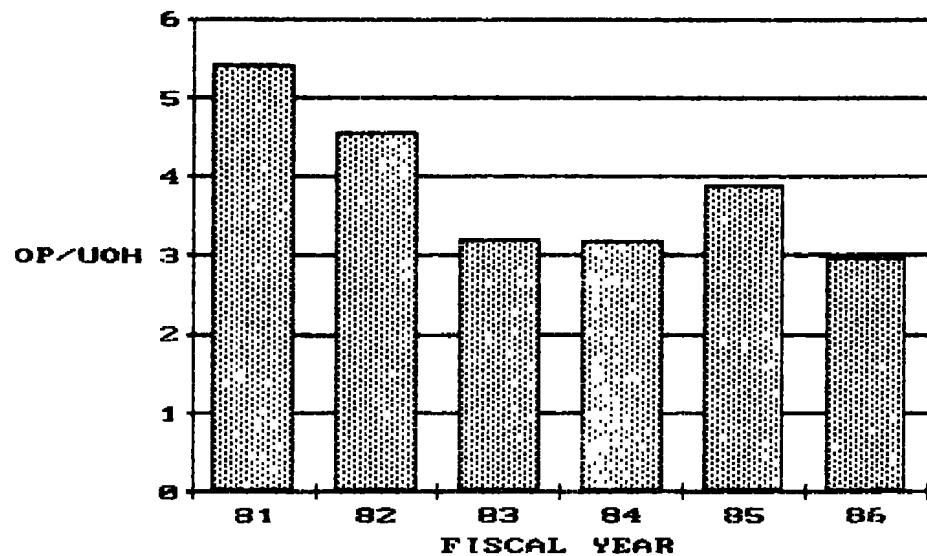
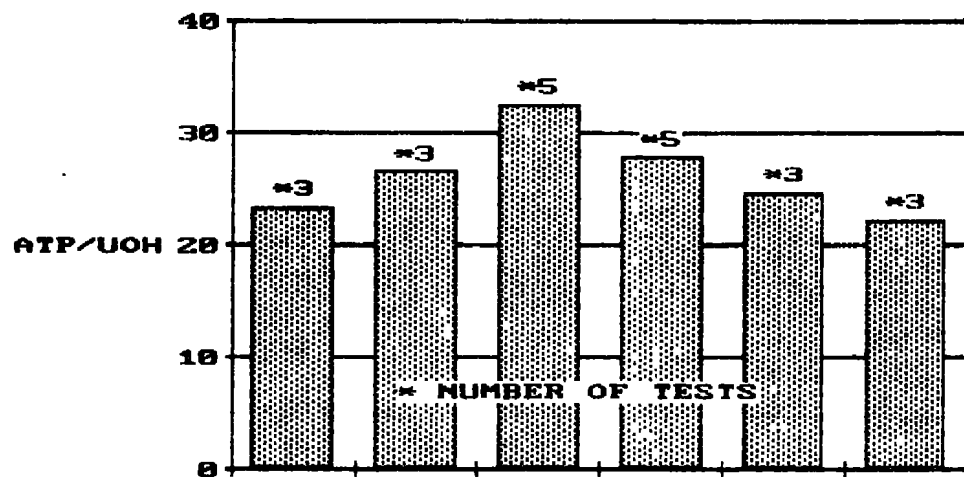
# PRST



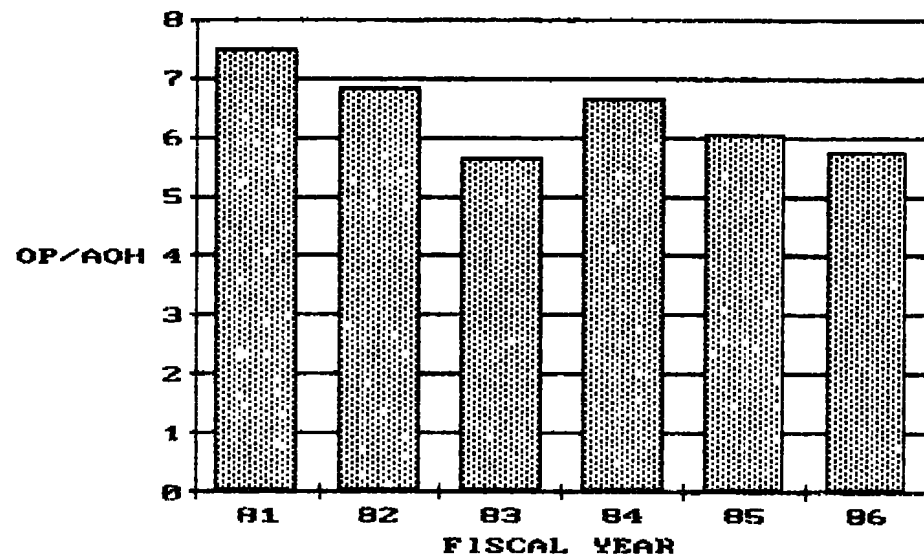
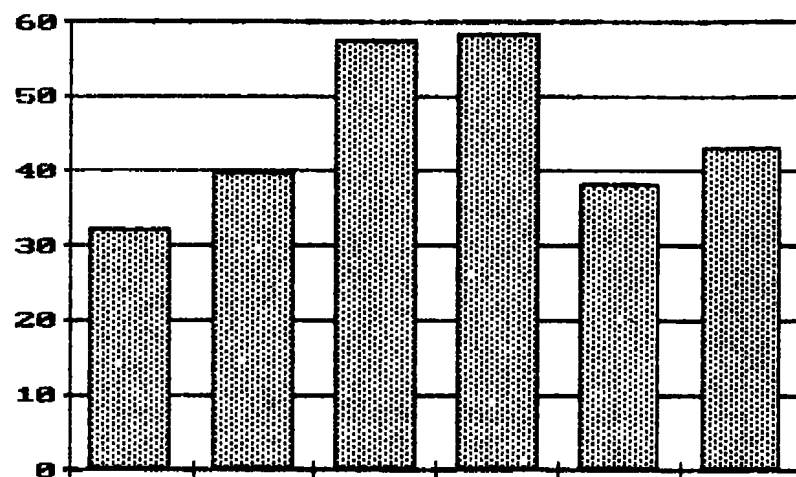
f. PRST

Figure 6. Continued

# SIPT



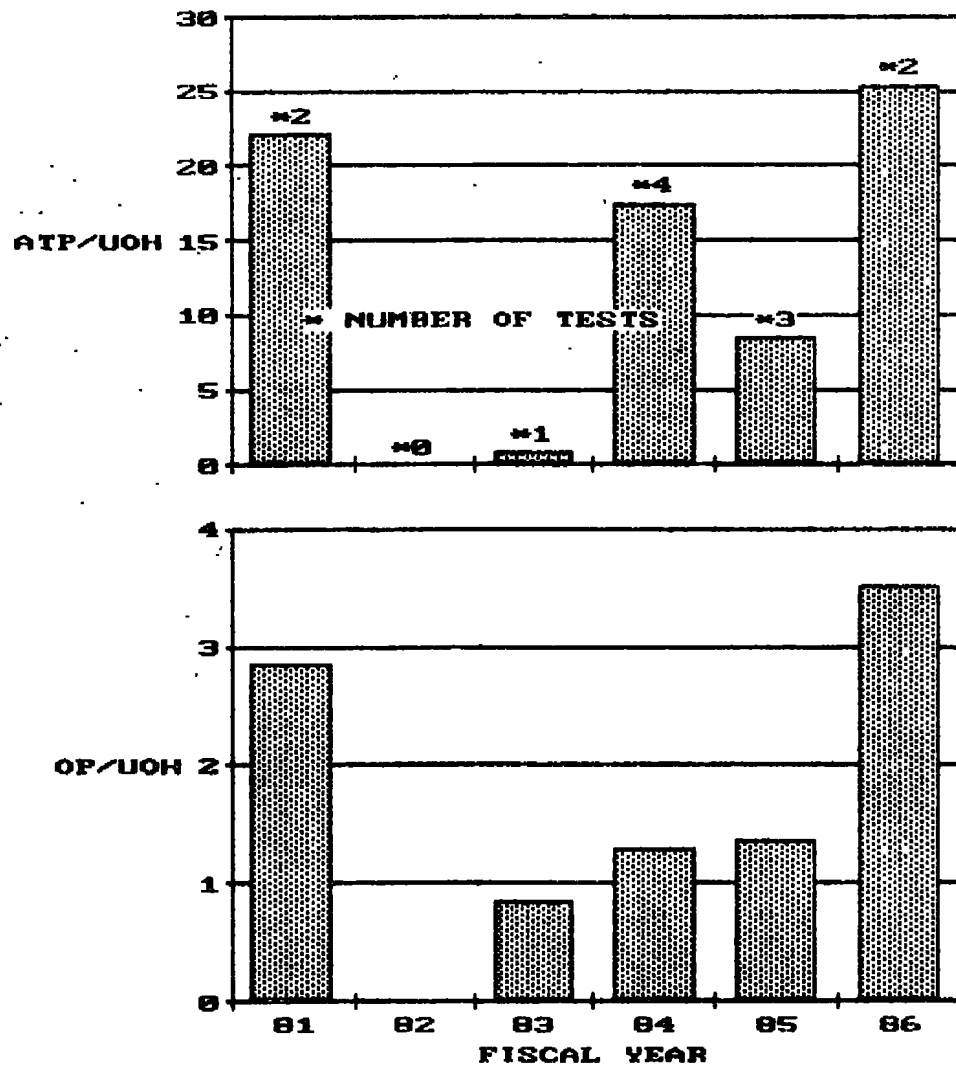
# SIPT



g. SIPT

Figure 6. Concluded

## ALL TESTS



## ALL TESTS

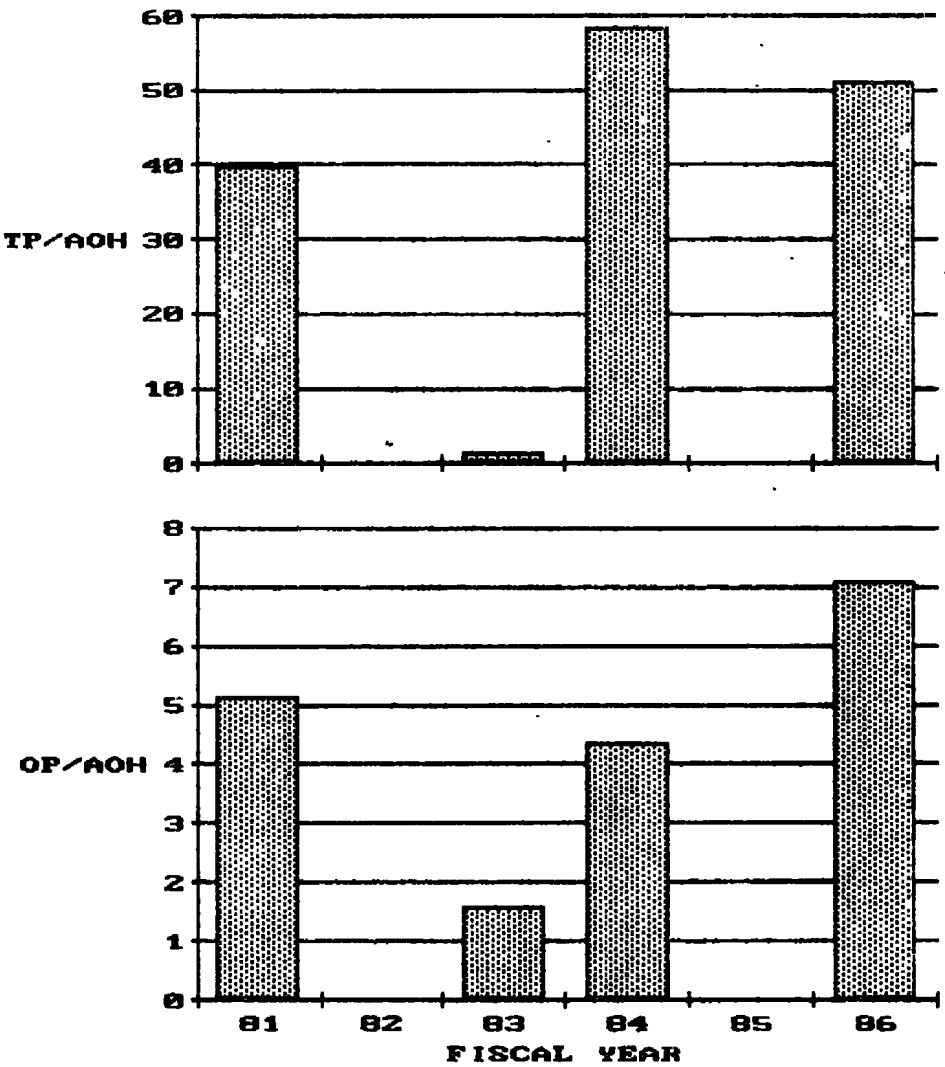
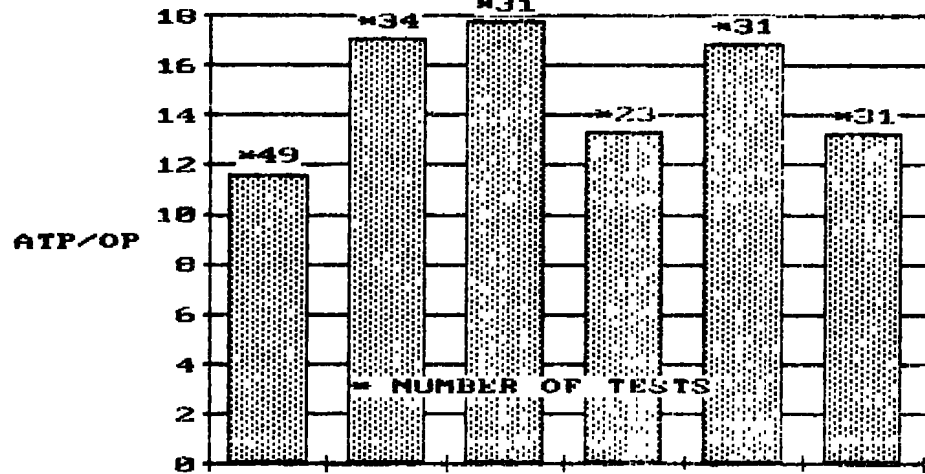


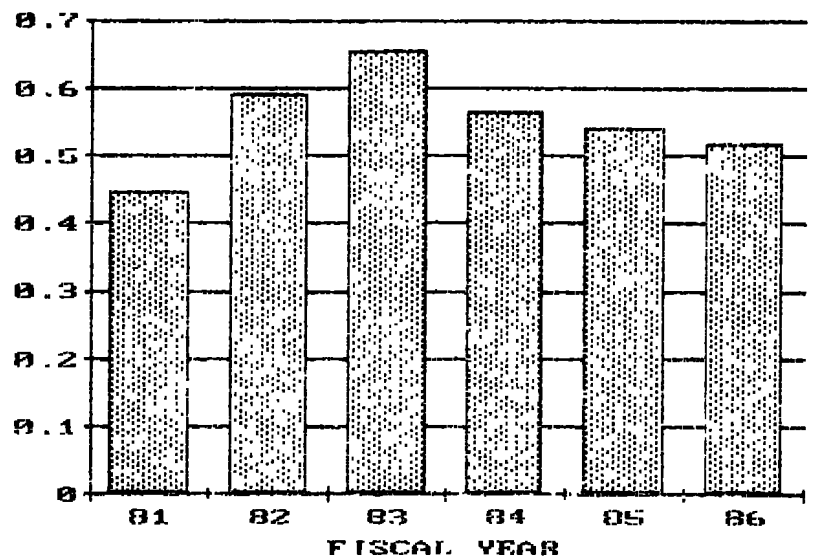
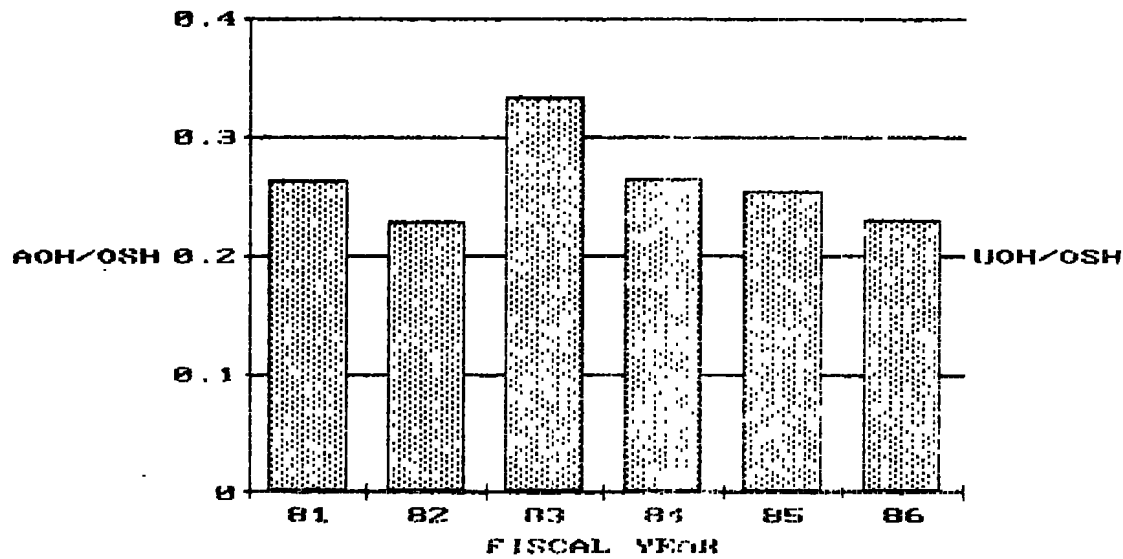
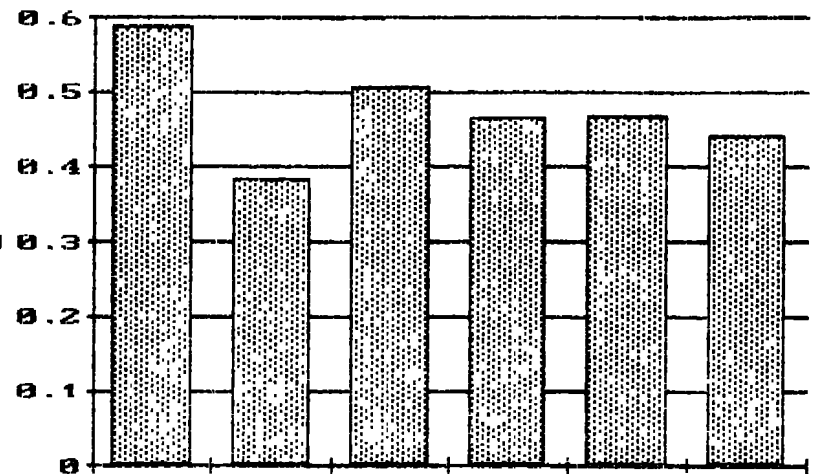
Figure 7. Productivity Statistics for Tunnel 16S (All Tests)



## ALL TESTS

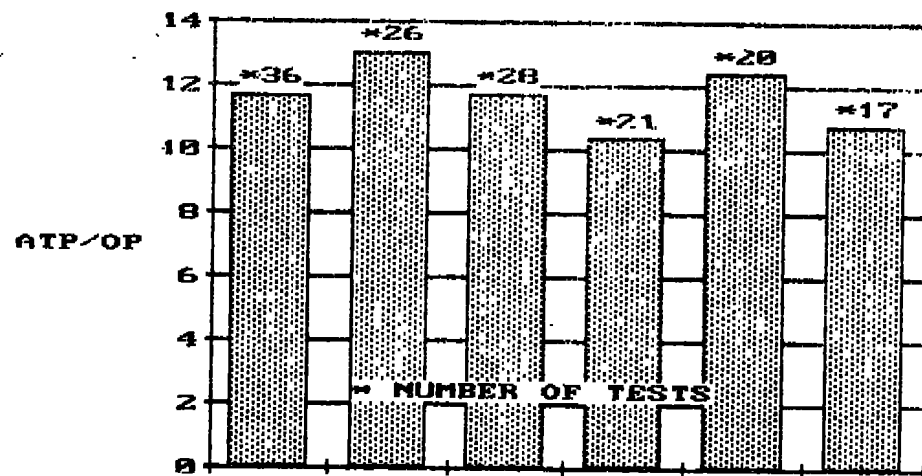


## ALL TESTS

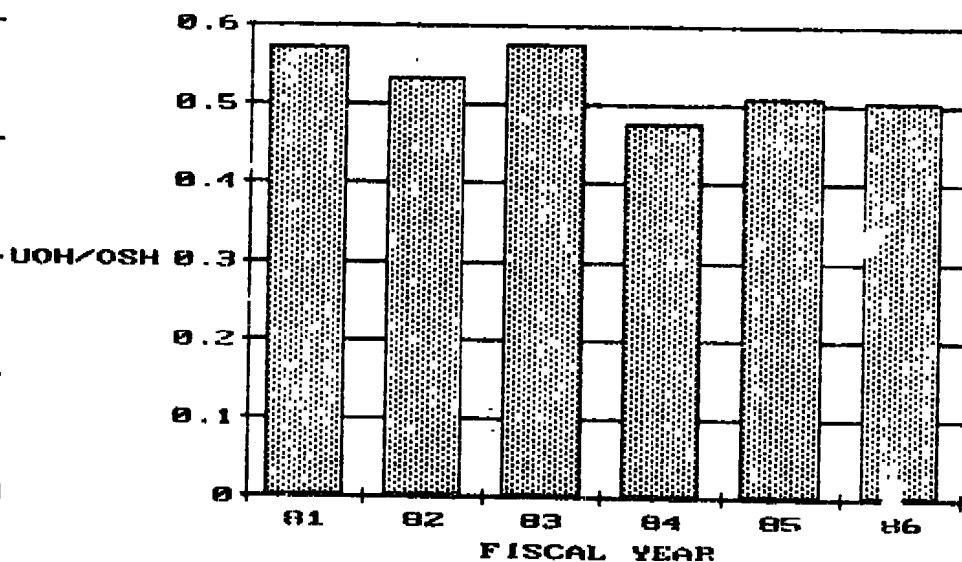
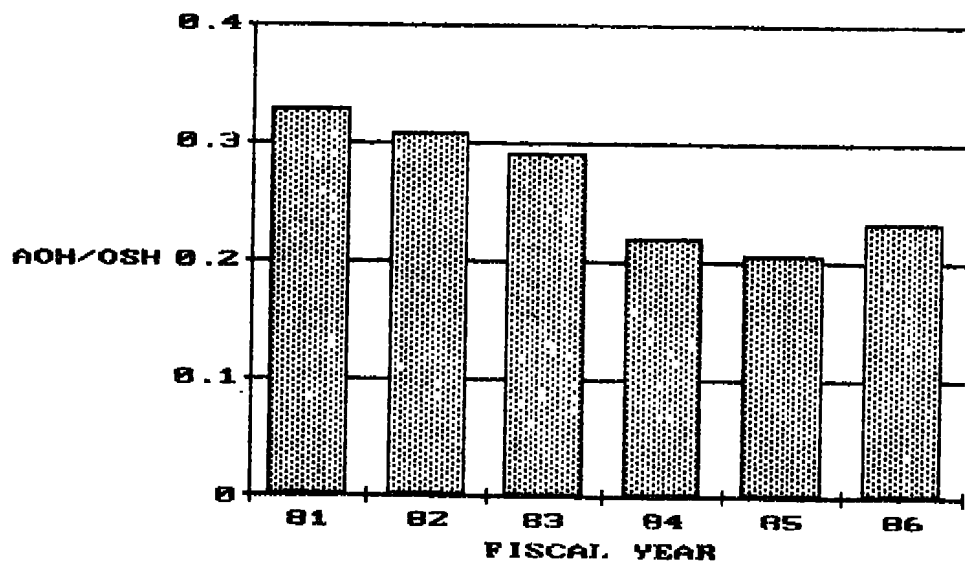
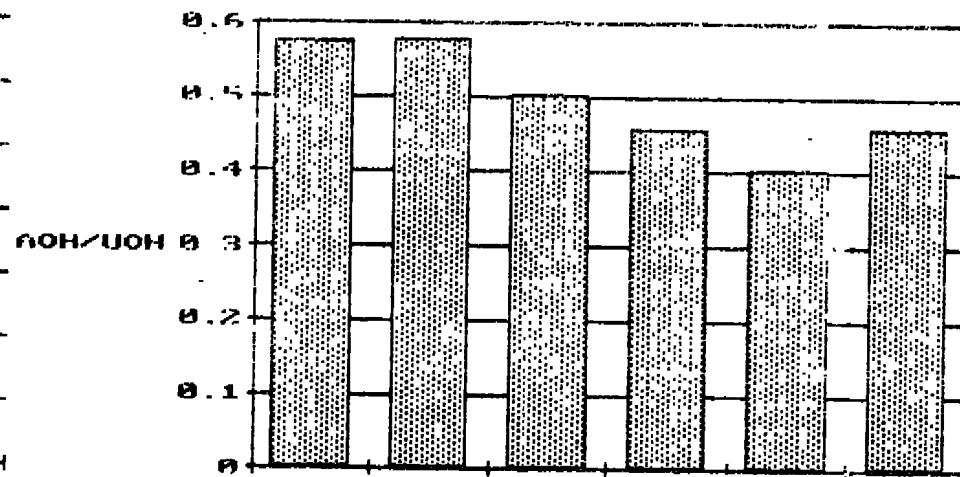


a. 4T  
Figure 8. Miscellaneous Tunnel Statistics

## ALL TESTS



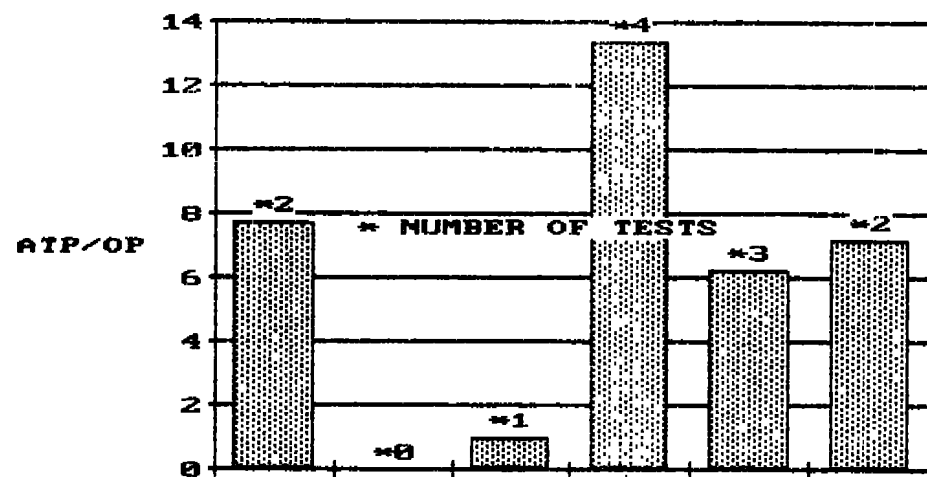
## ALL TESTS



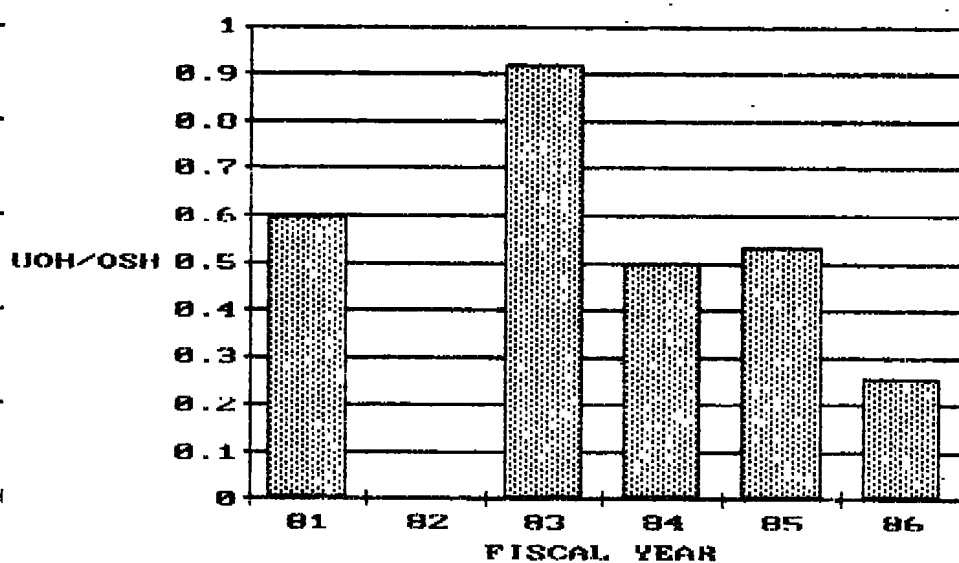
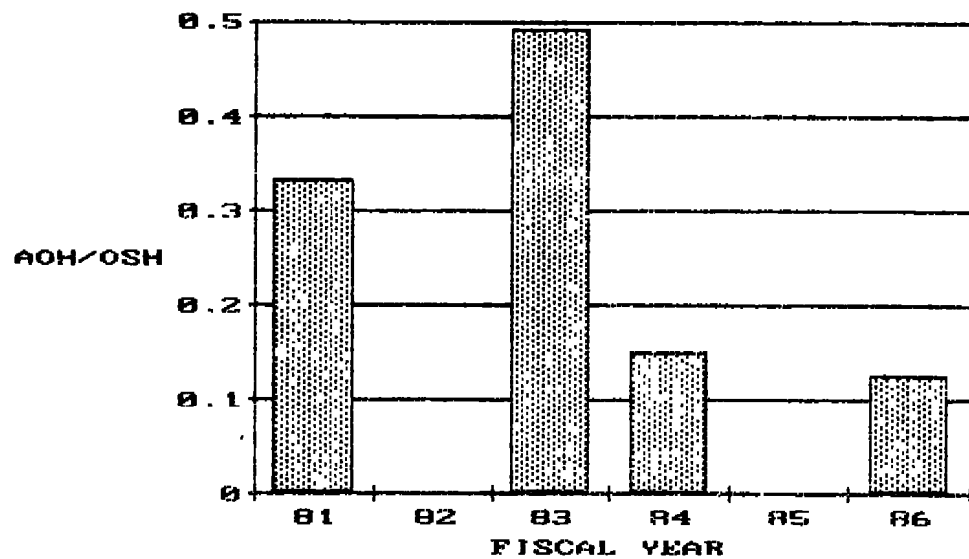
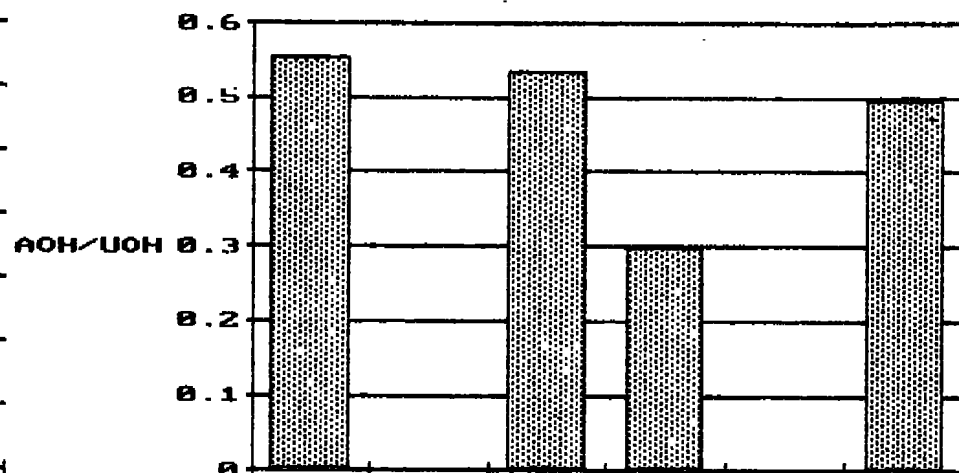
b. 16T

Figure 8. Continued

## ALL TESTS



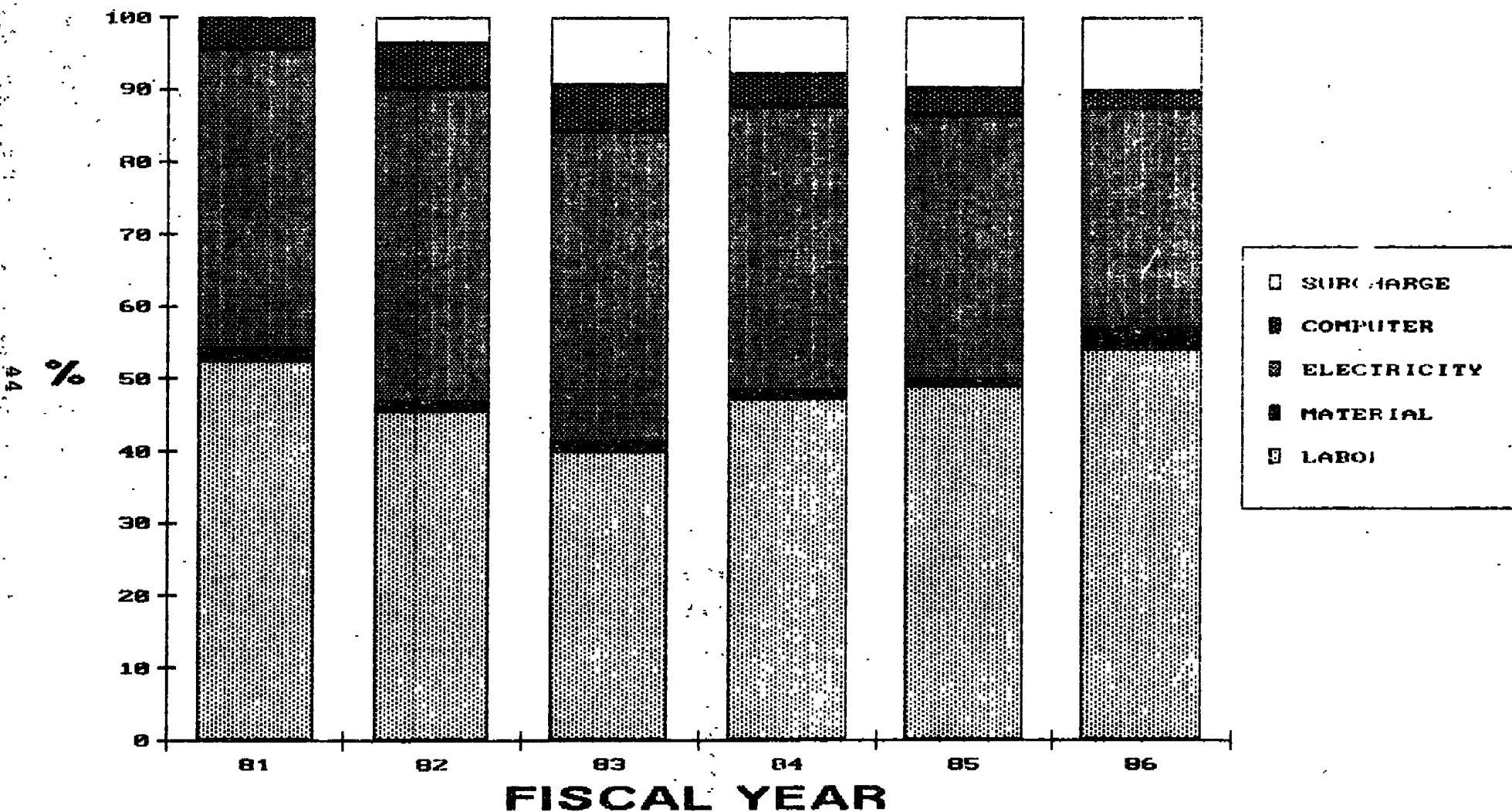
## ALL TESTS



c. 16S

Figure 8. Concluded

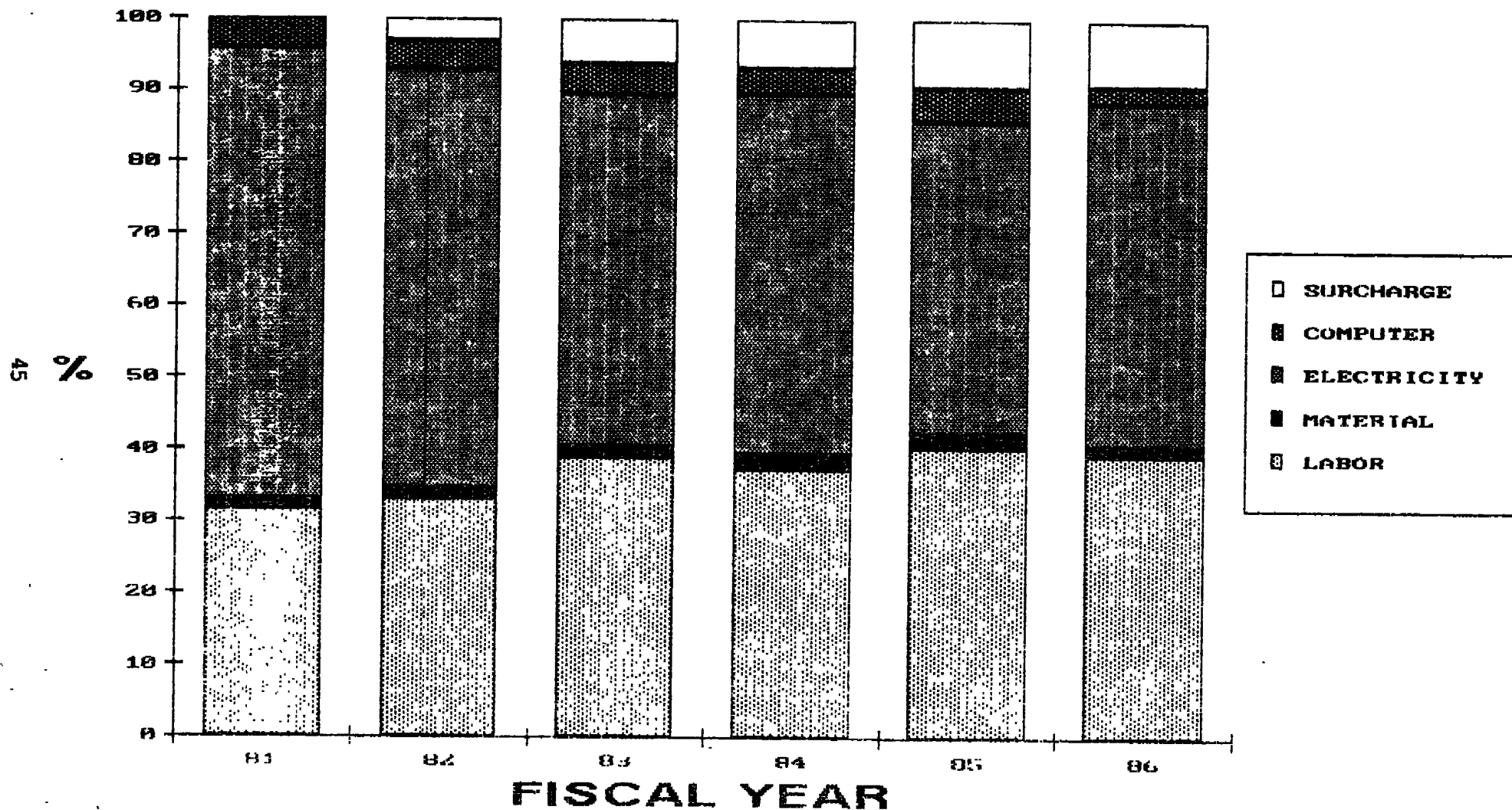
# TUNNEL 4T PROJECT COST



a. 4T

Figure 9. Distribution of Operating Costs

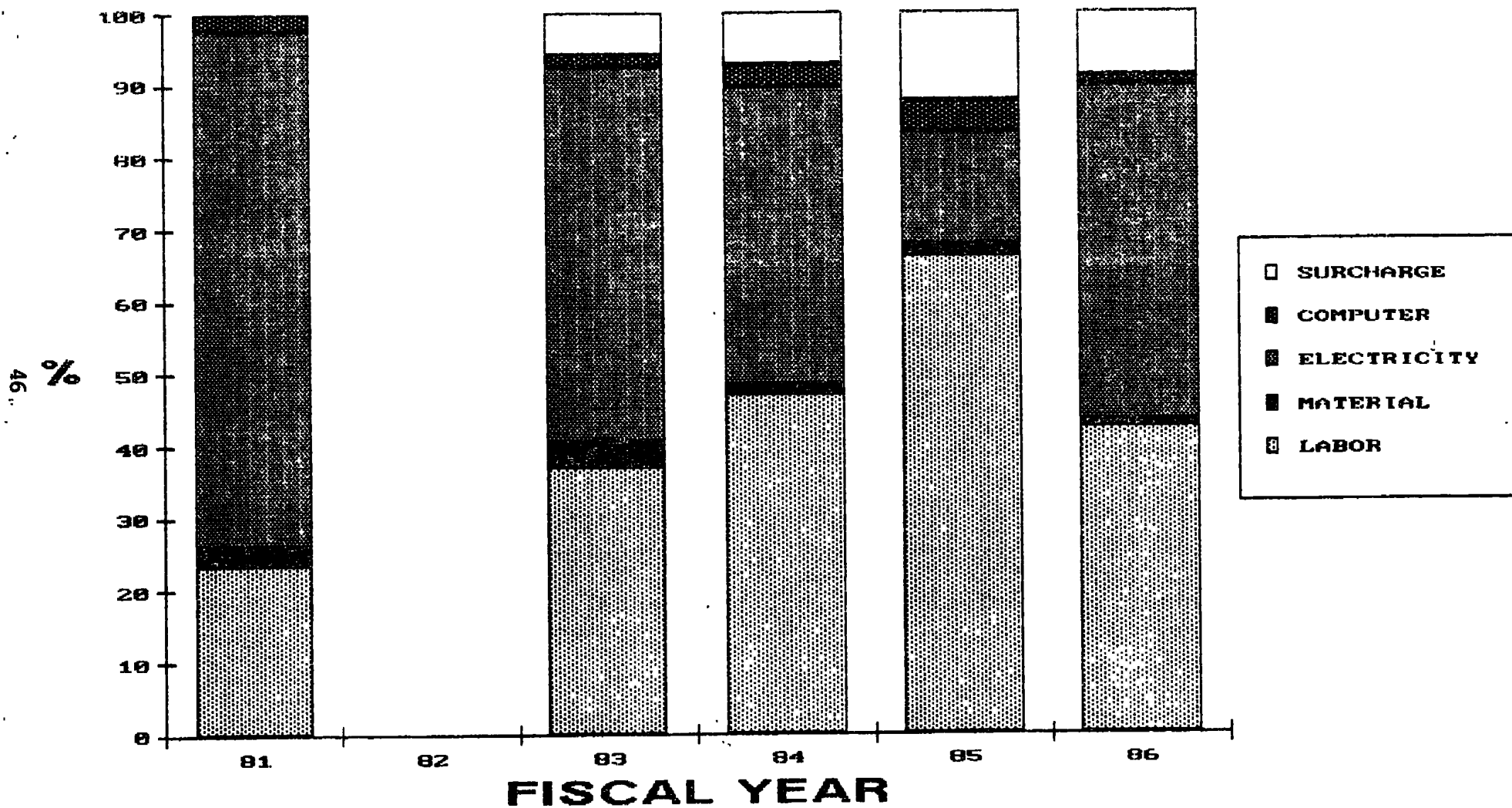
# TUNNEL 16T PROJECT COST



b. 16T

Figure 9. Continued

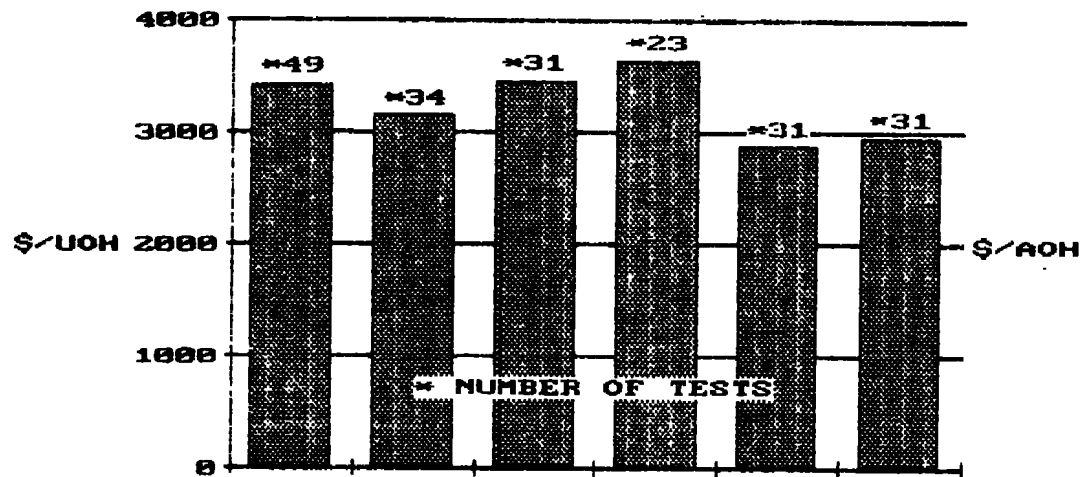
# TUNNEL 16S PROJECT COST



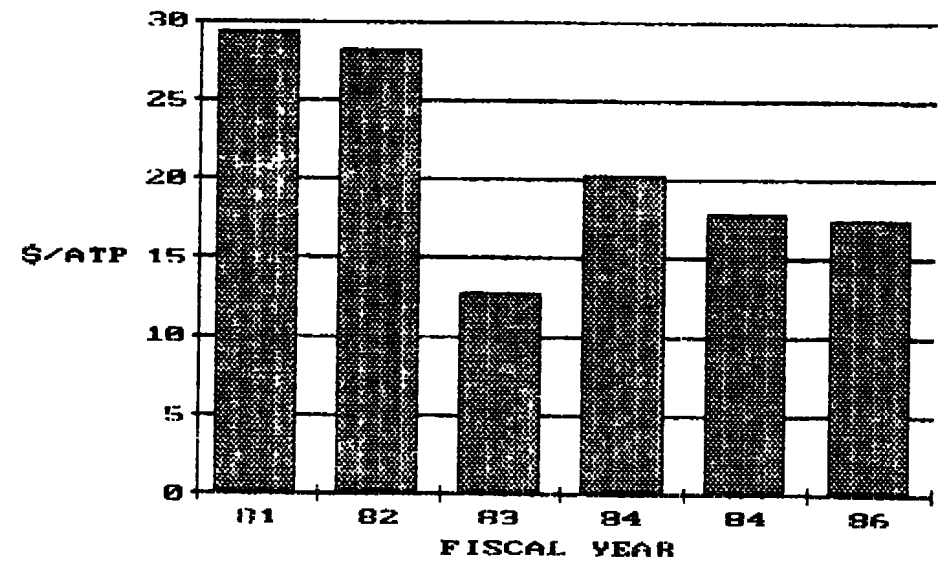
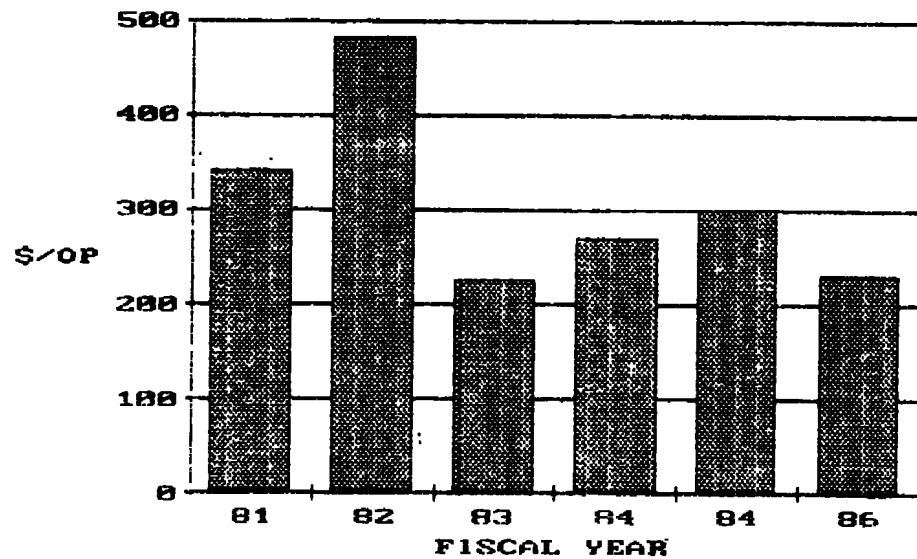
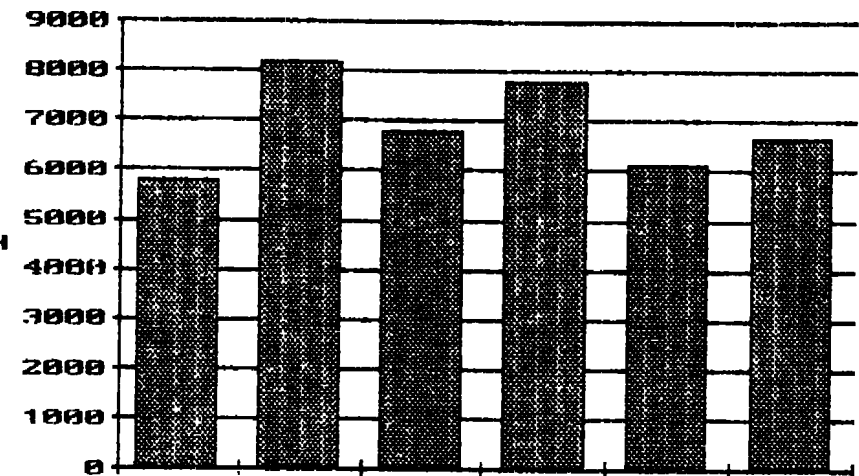
c. 16S

Figure 9. Concluded

## ALL TESTS



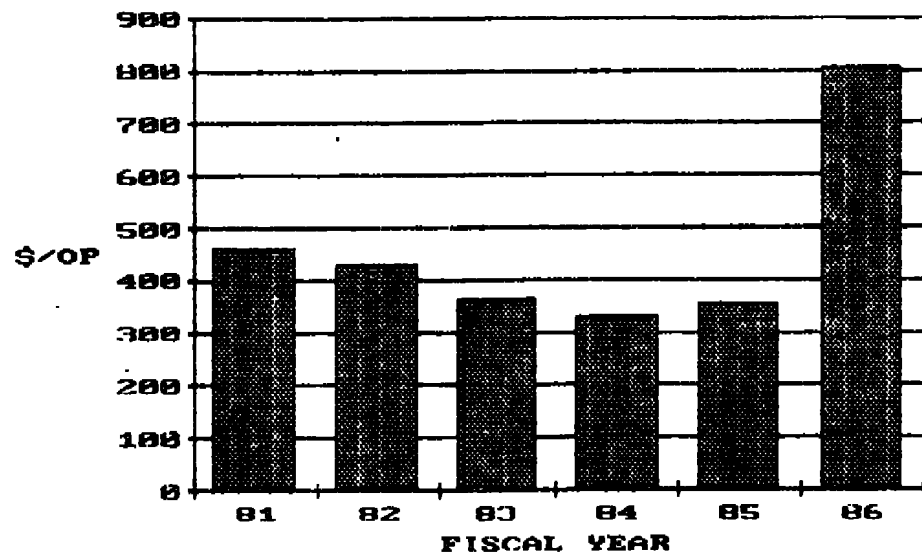
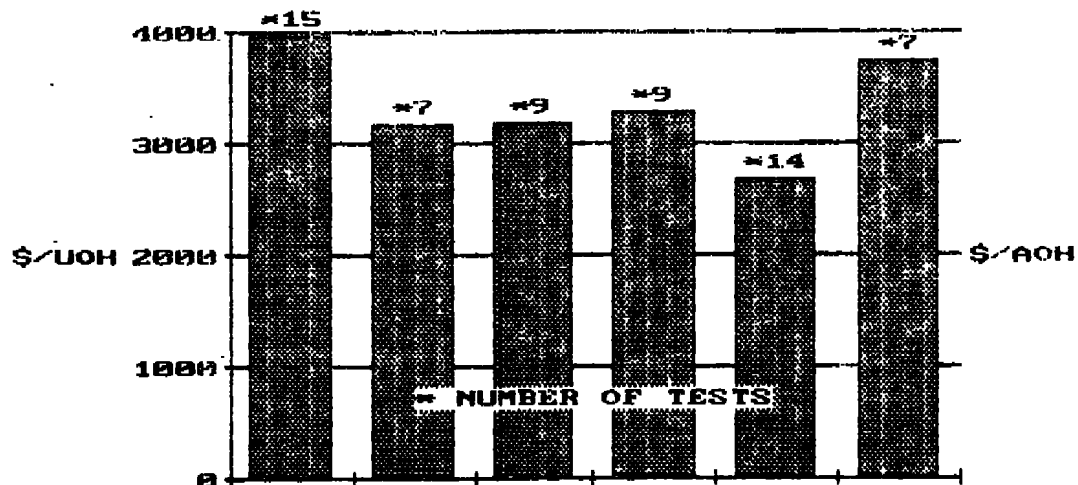
## ALL TESTS



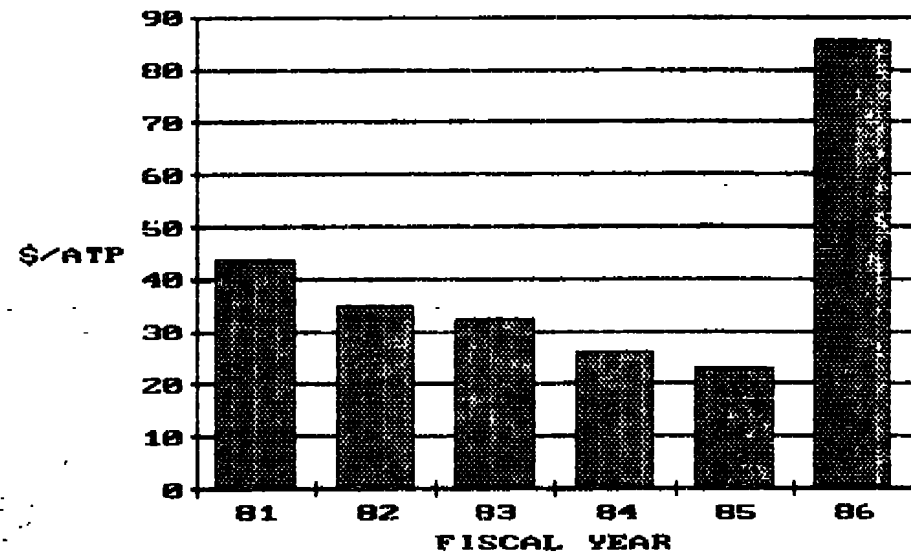
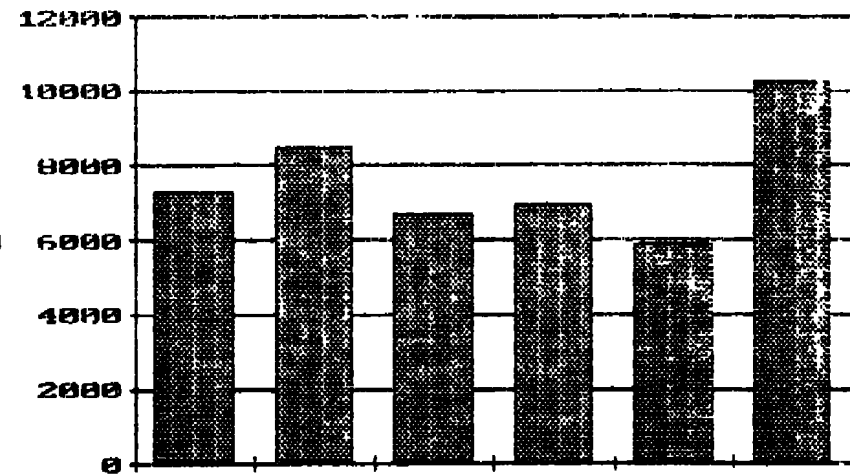
a. All Tests

Figure 10. Operations Cost Statistics for Tunnel 4T

# BALC



# BALC

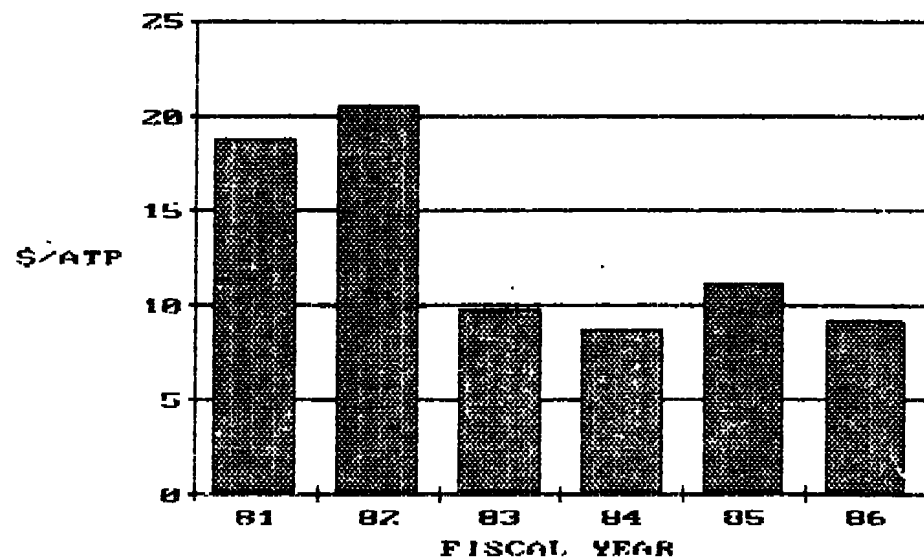
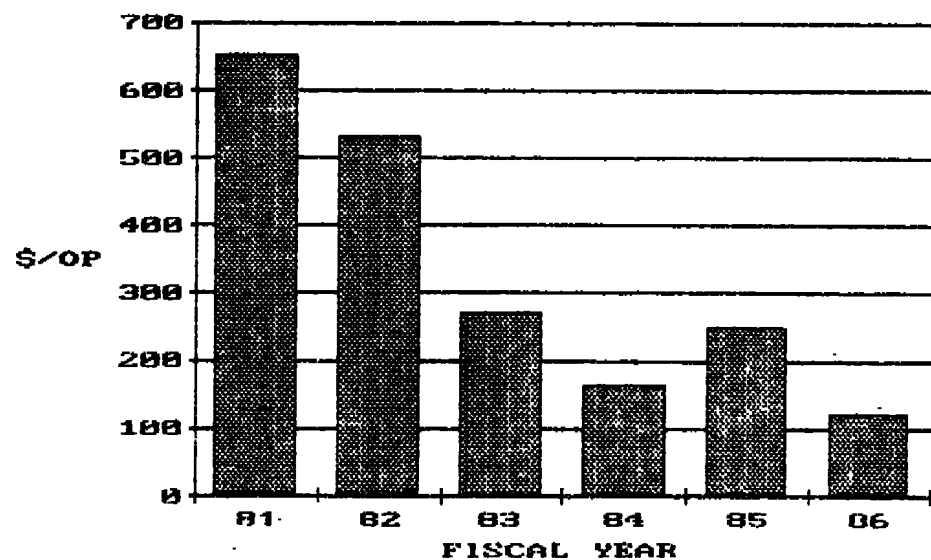
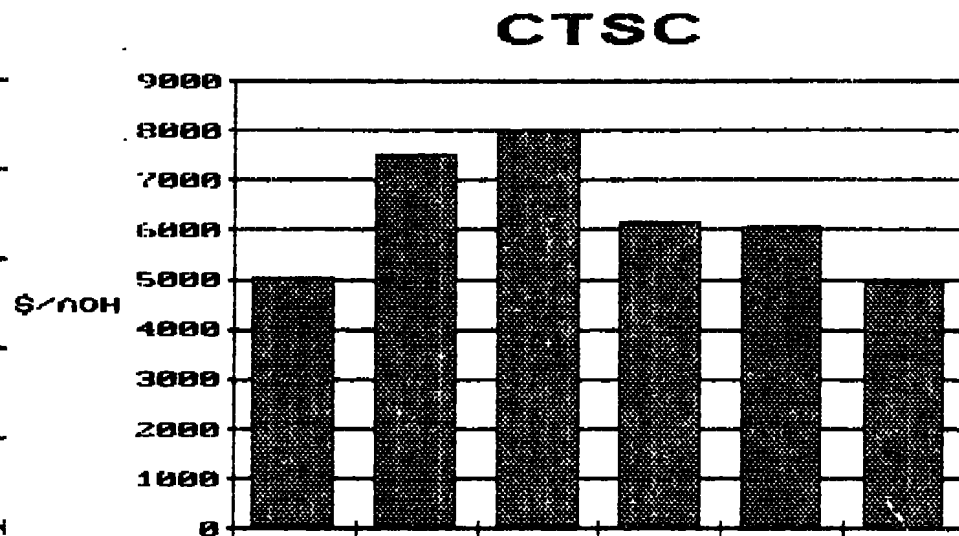
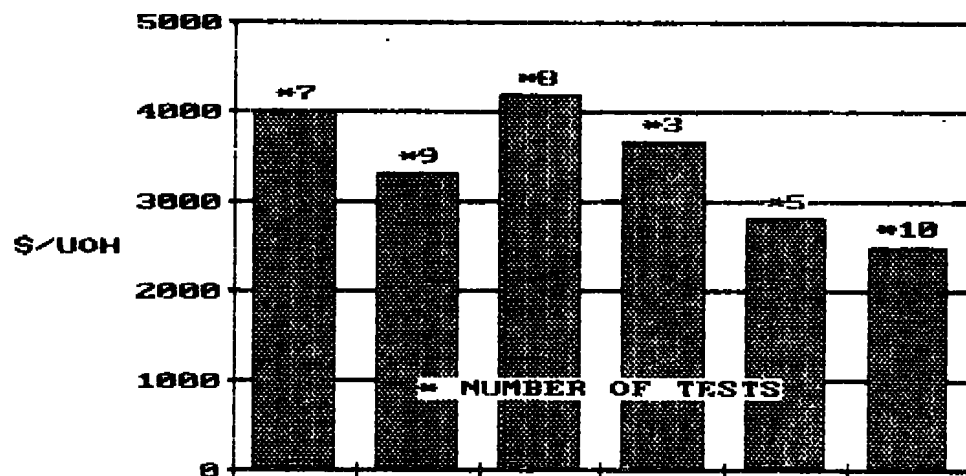


b. BALC

Figure 10. Continued

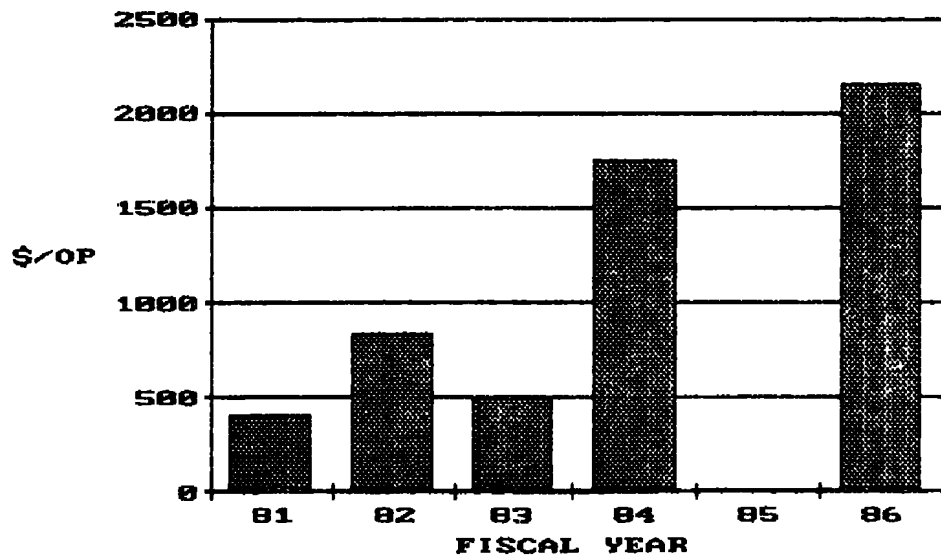
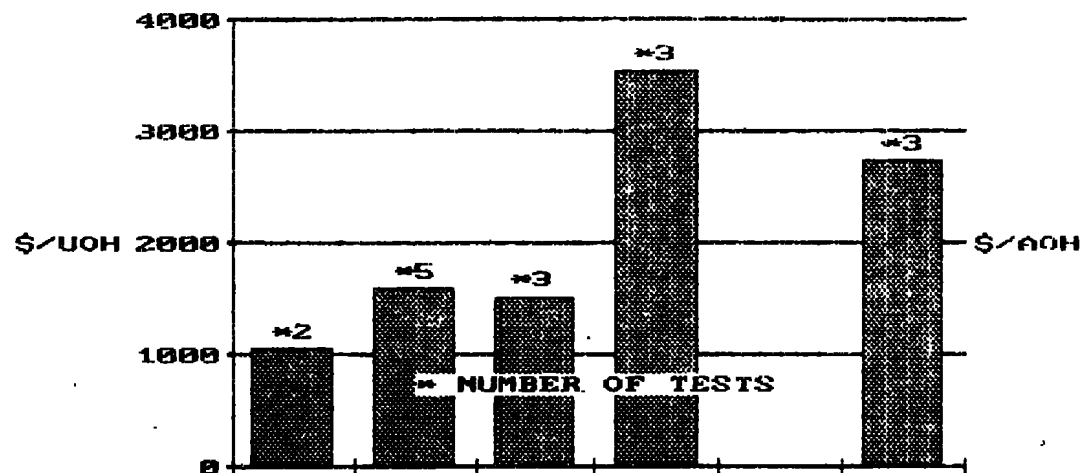


# CTSC

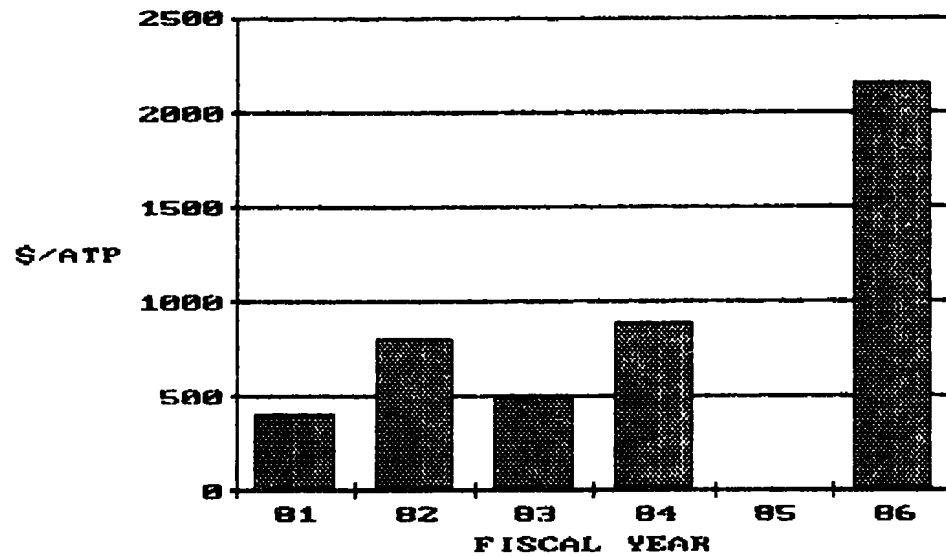
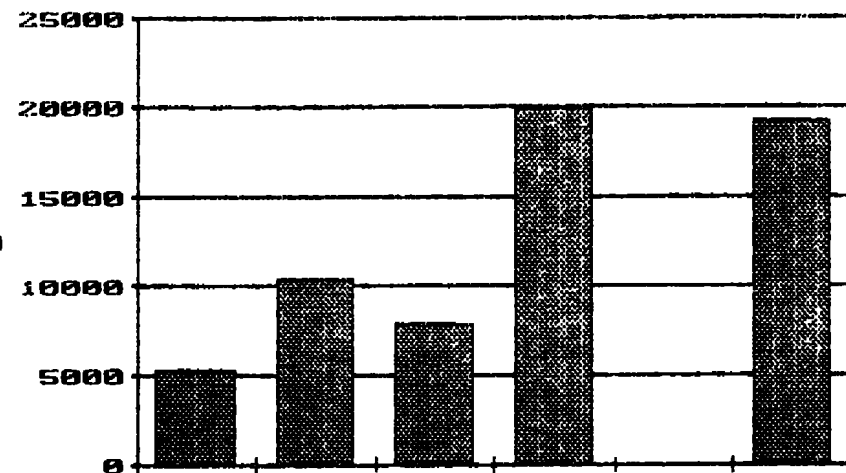


c. CTSC  
Figure 10. Continued

# DYDC



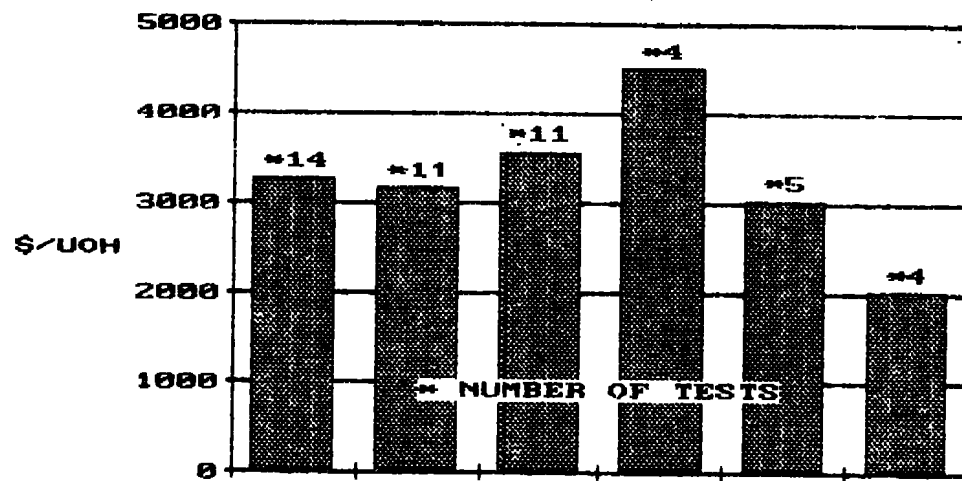
# DYDC



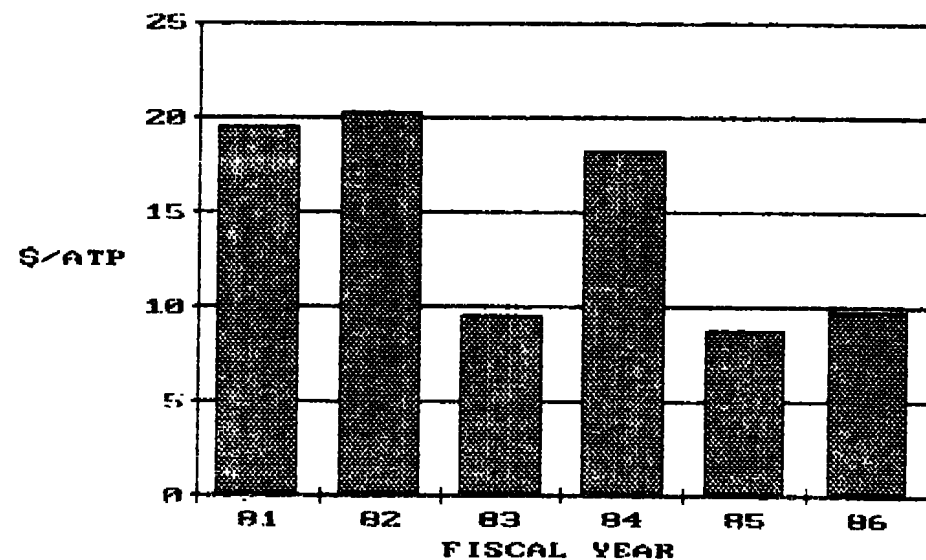
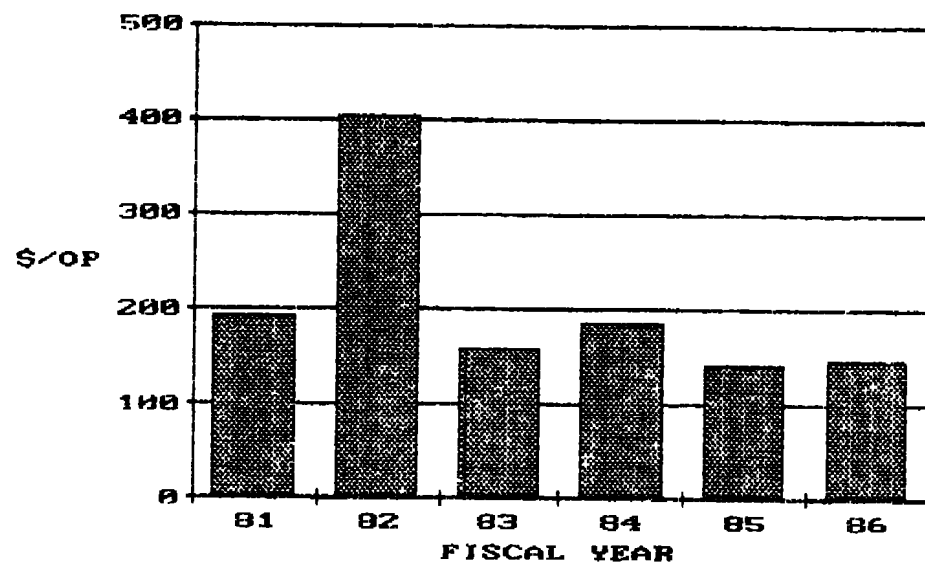
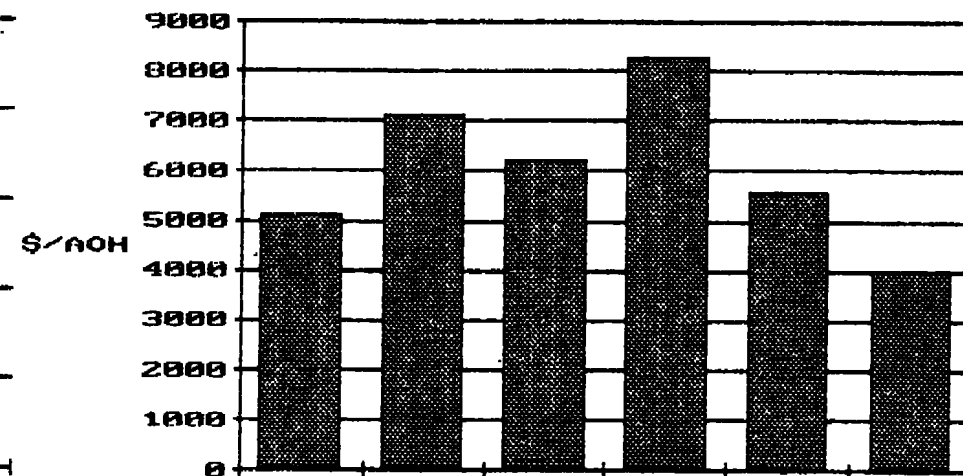
d. DYDC

Figure 10. Continued

# GRDC

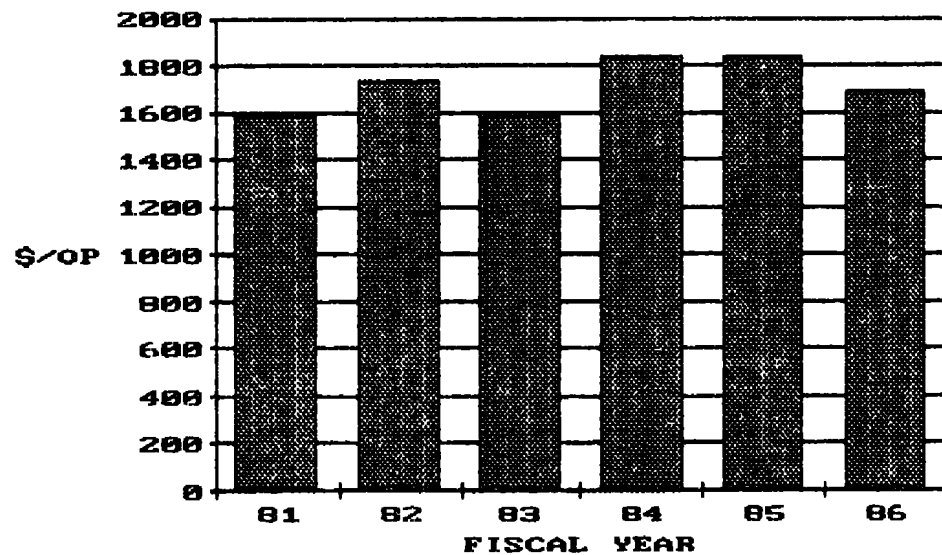
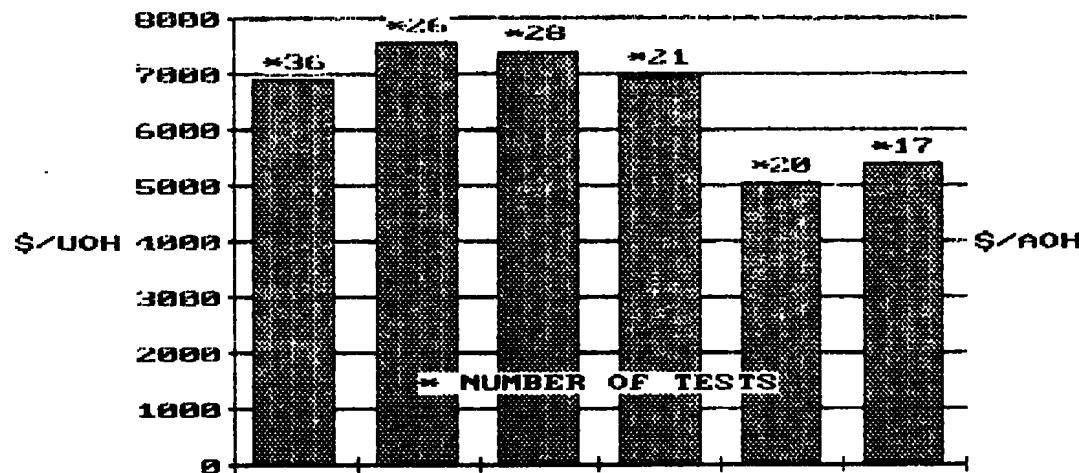


# GRDC

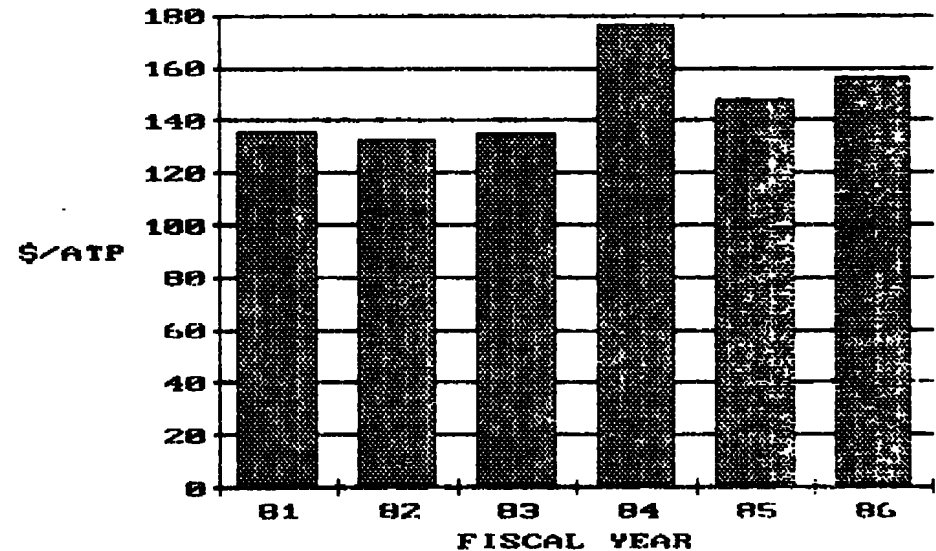
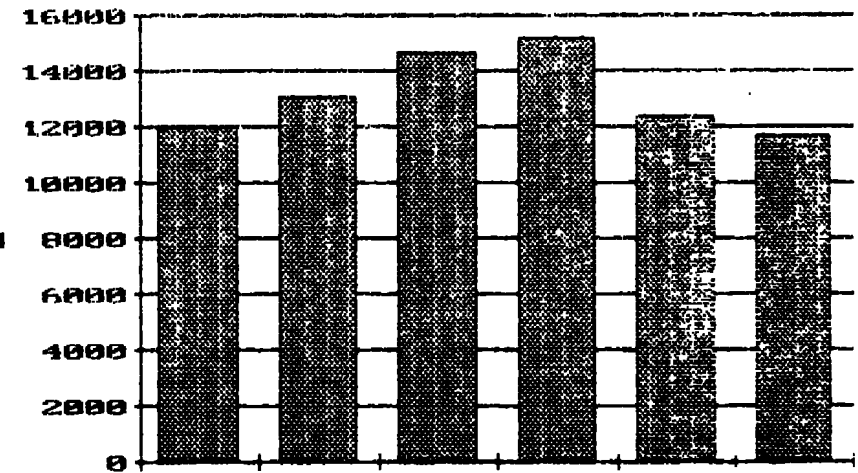


e. GRDC  
Figure 10. Concluded

## ALL TESTS



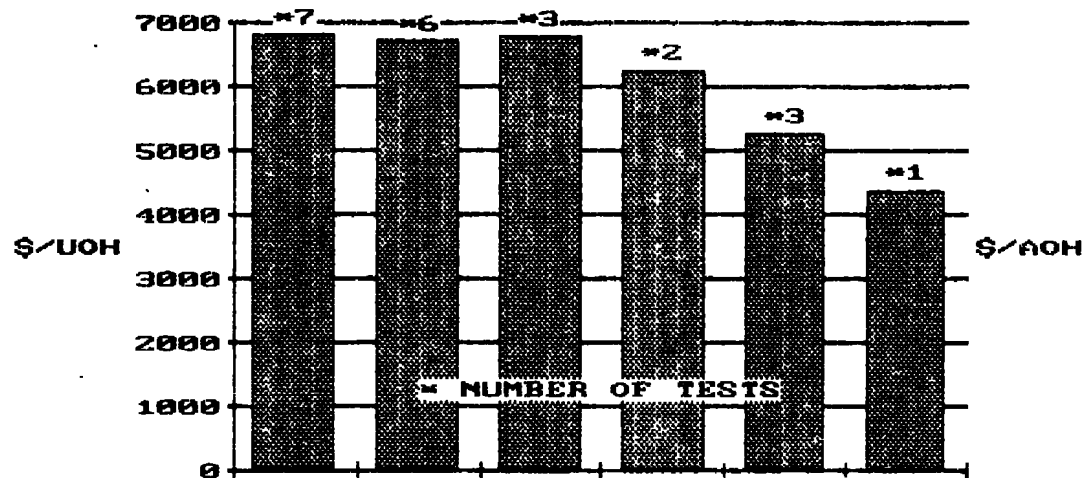
## ALL TESTS



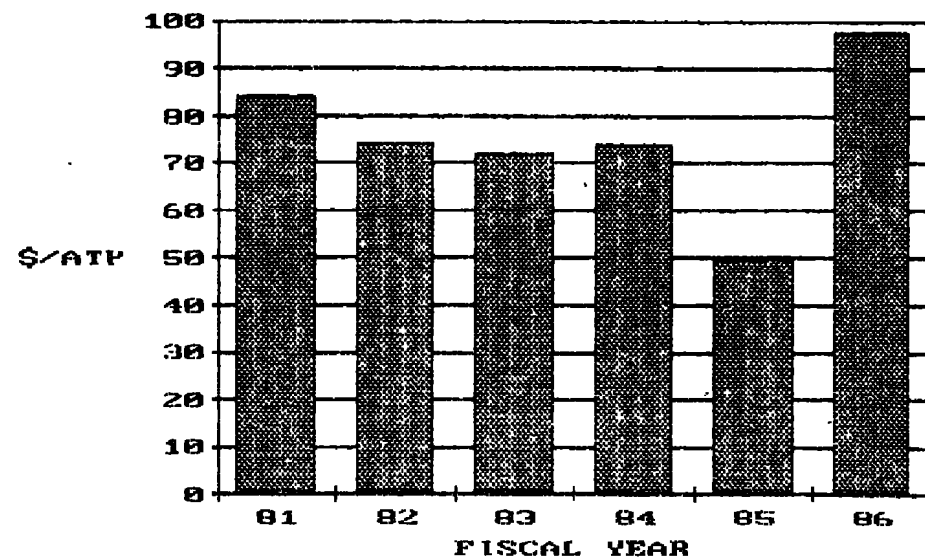
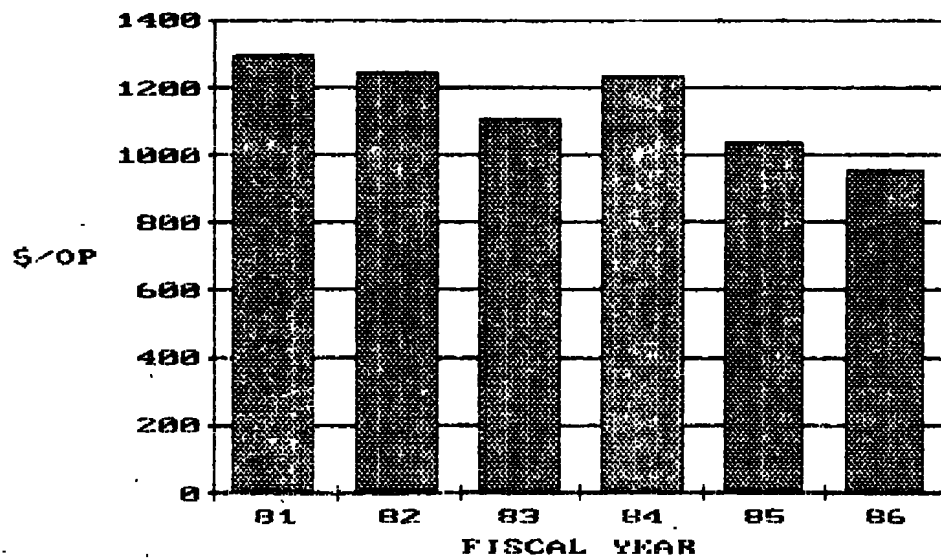
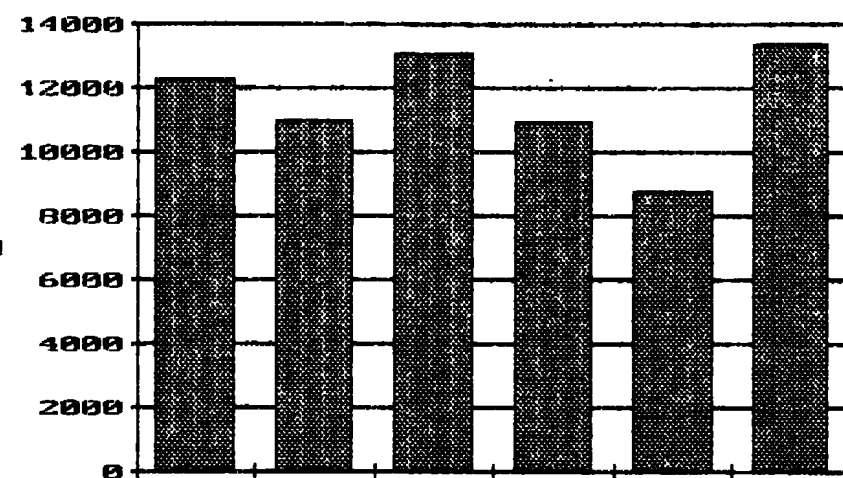
a. All Tests

Figure 11. Operations Cost Statistics for Tunnel 16T

## BALT



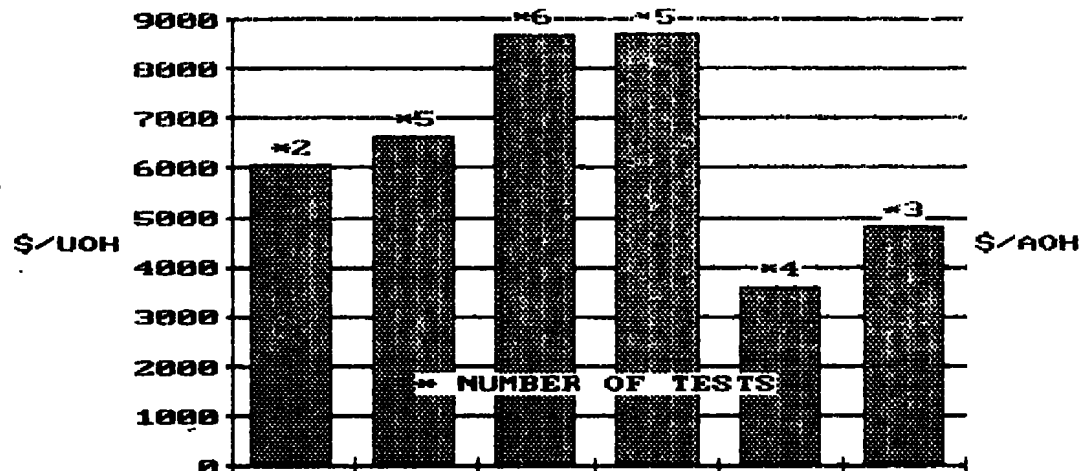
## BALT



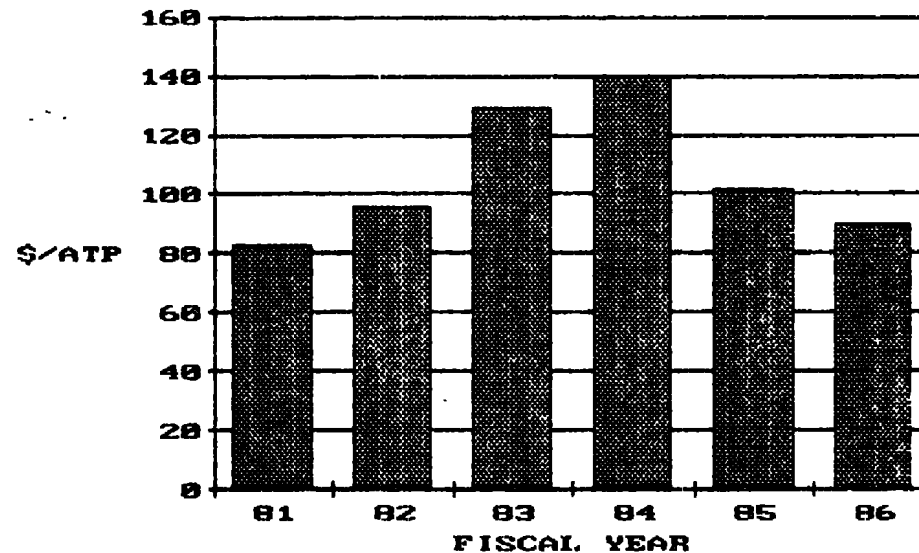
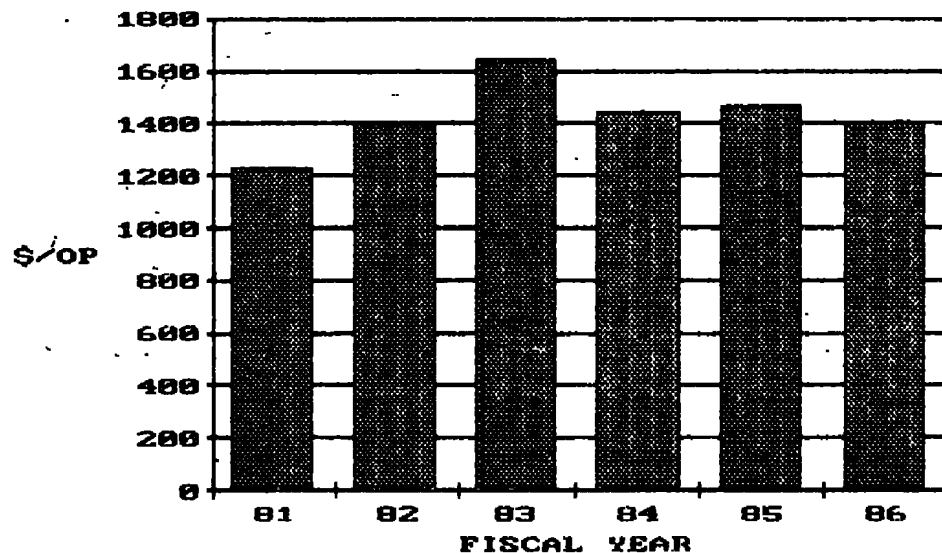
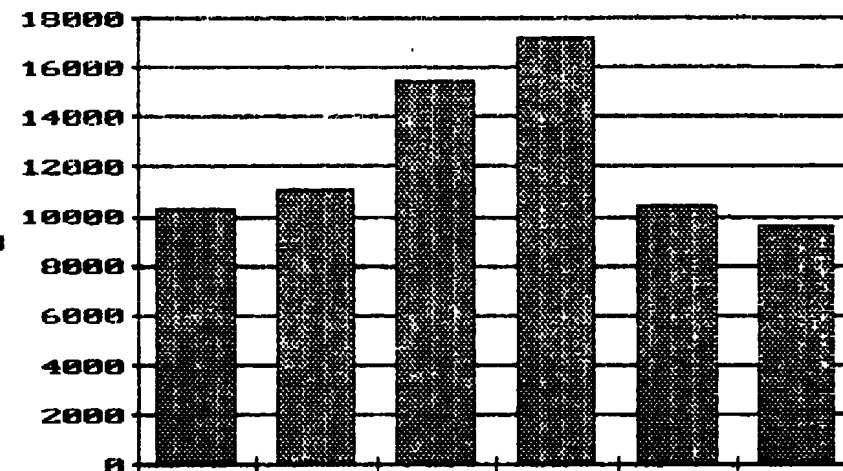
b. BALT

Figure 11. Continued

# BAPT



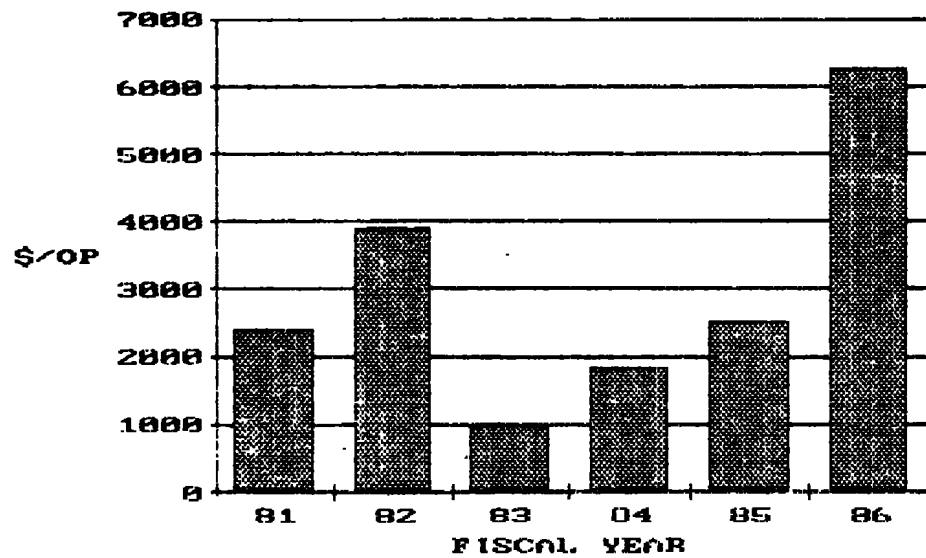
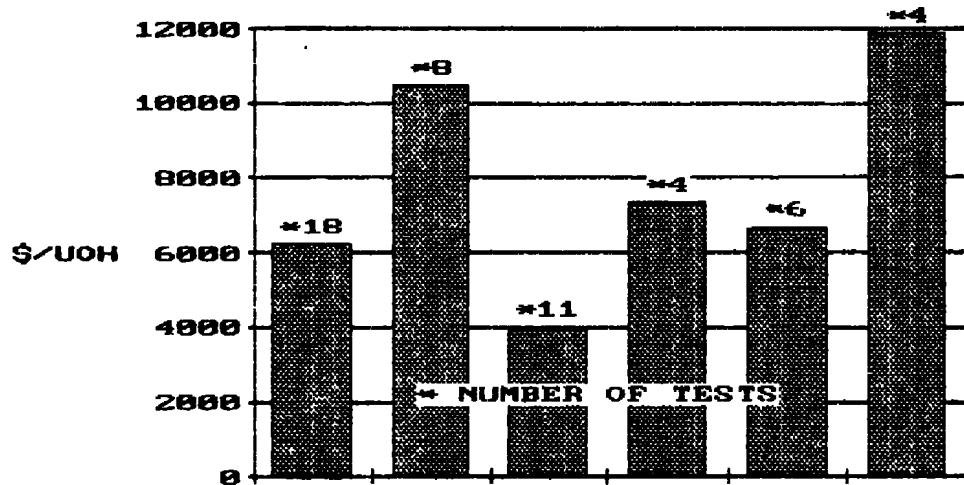
# BAPT



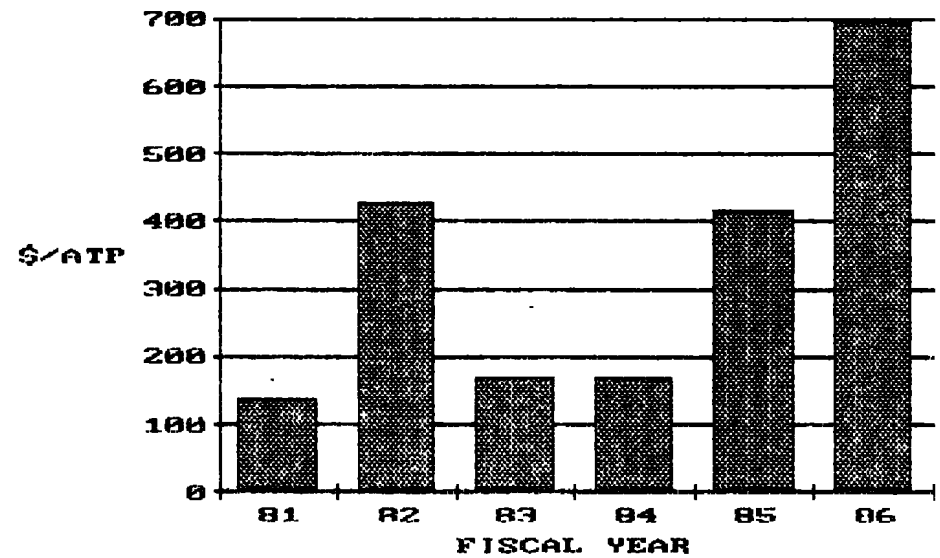
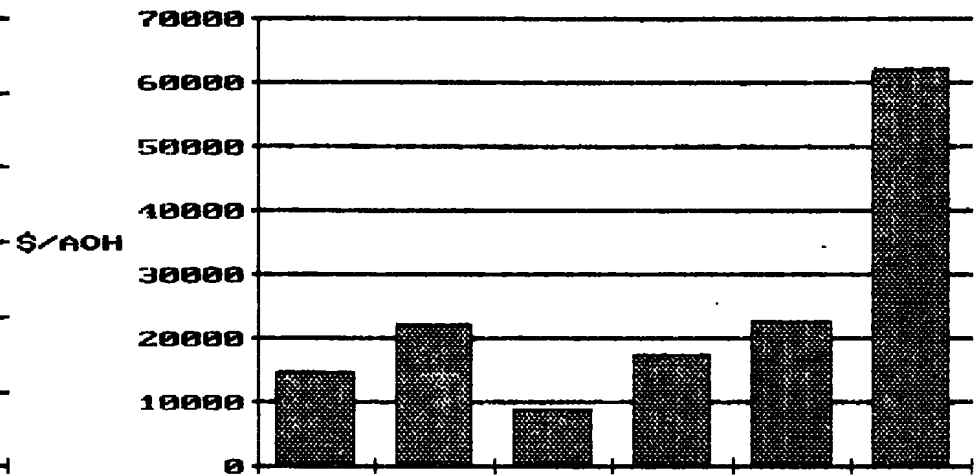
c. BAPT

Figure 11. Continued

# MIST

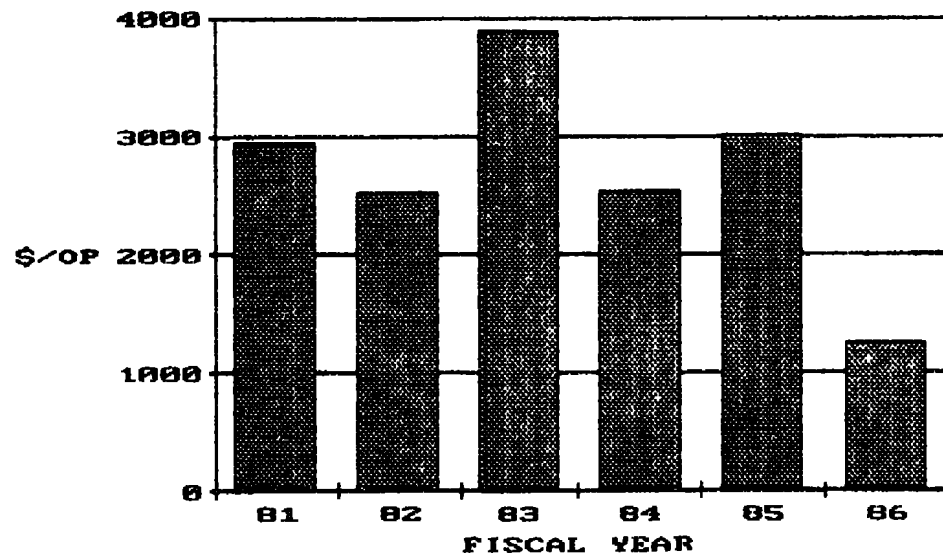
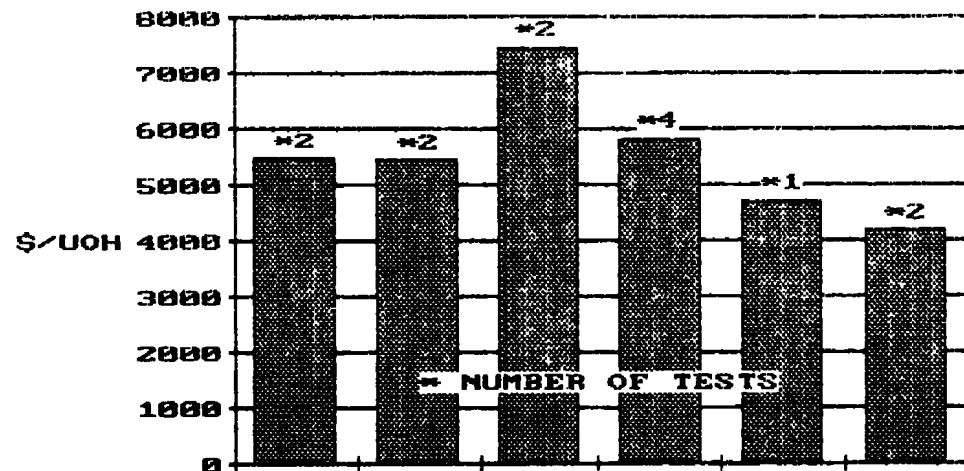


# MIST

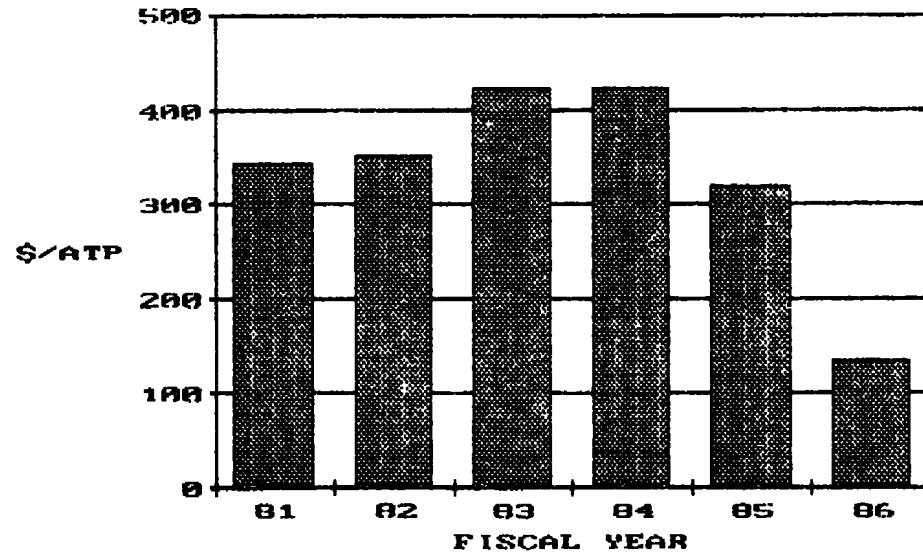
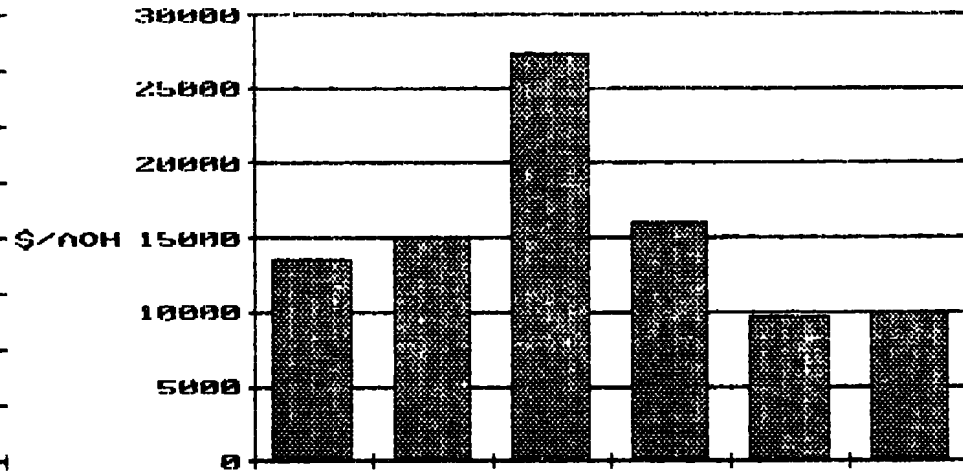


d. MIST  
Figure 11. Continued

# NABT



# NABT

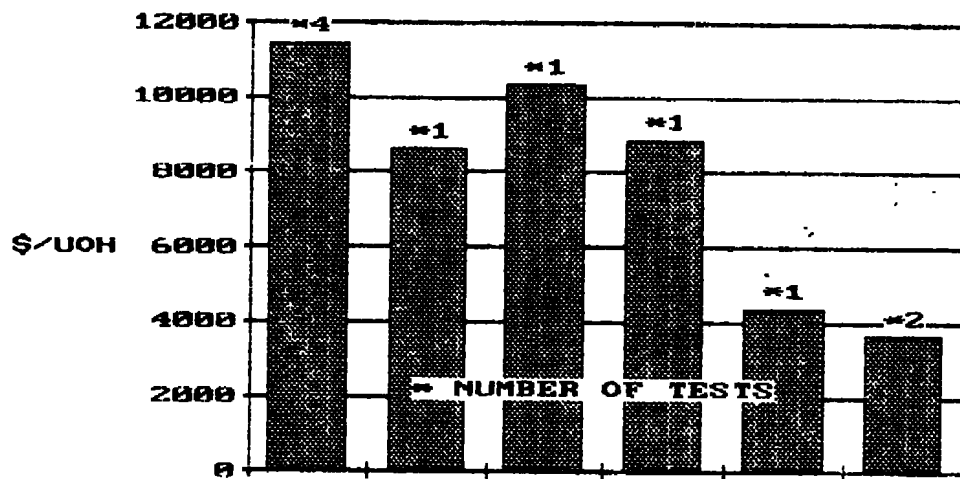


e. NABT

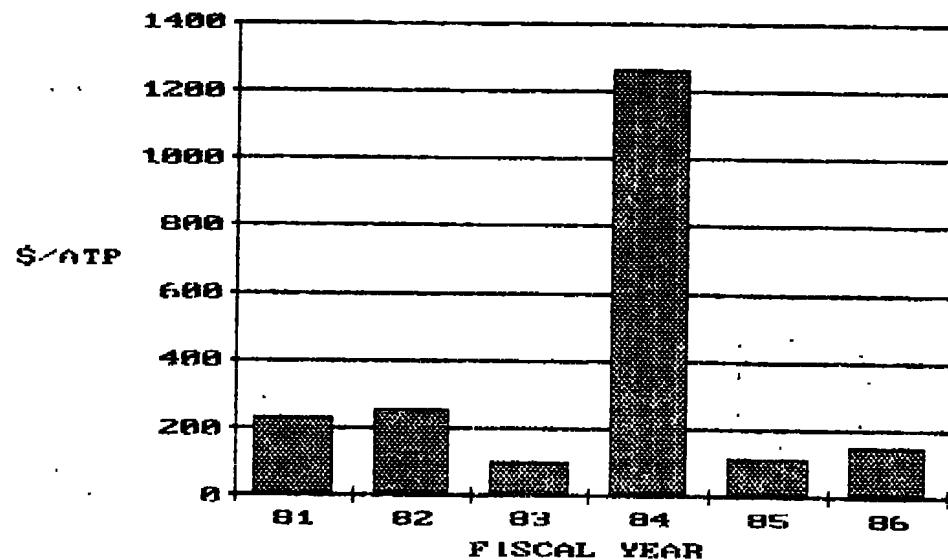
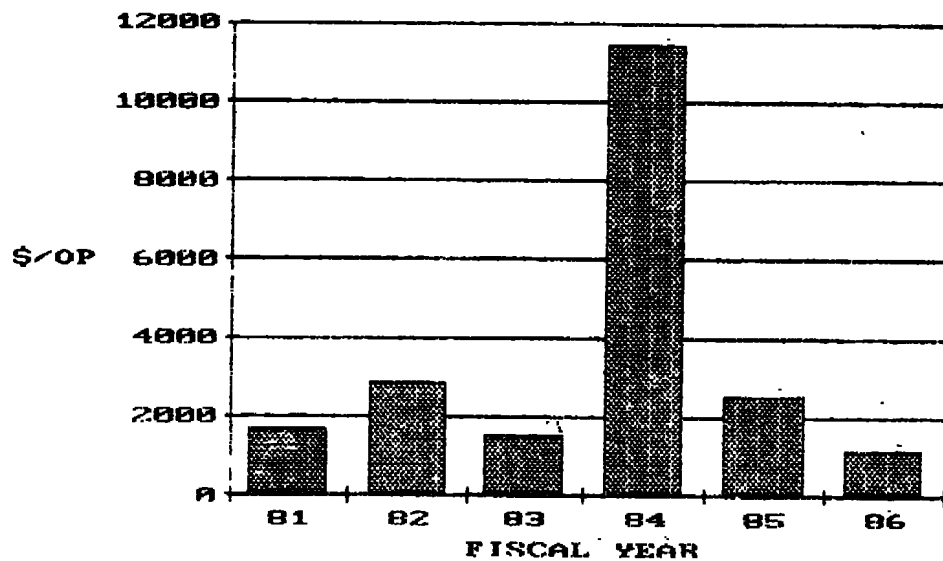
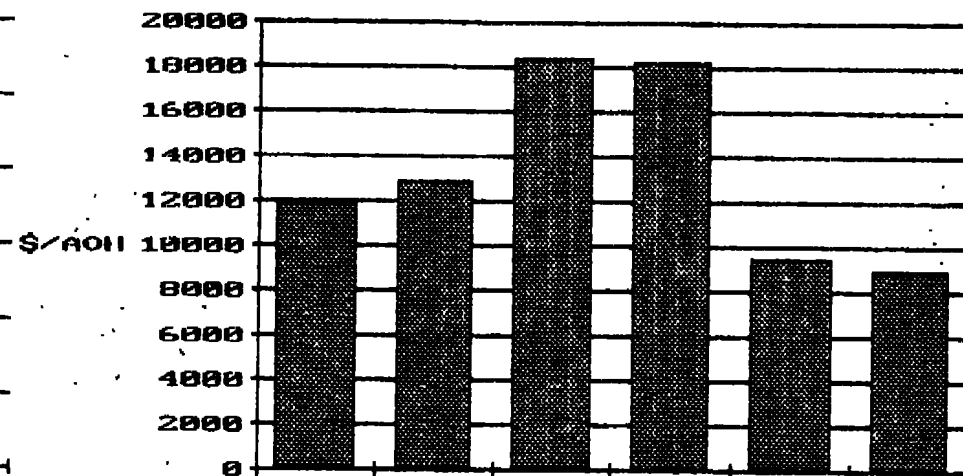
Figure 11. Continued



# PRST

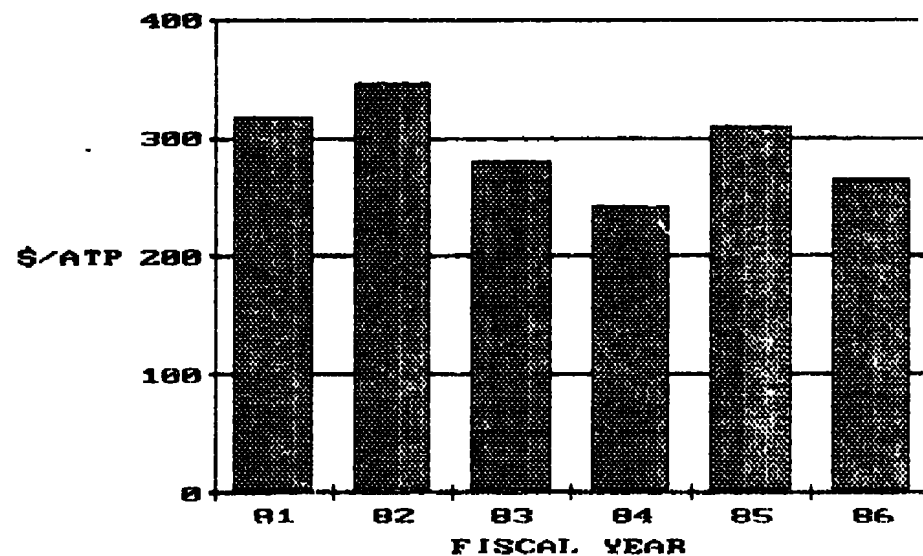
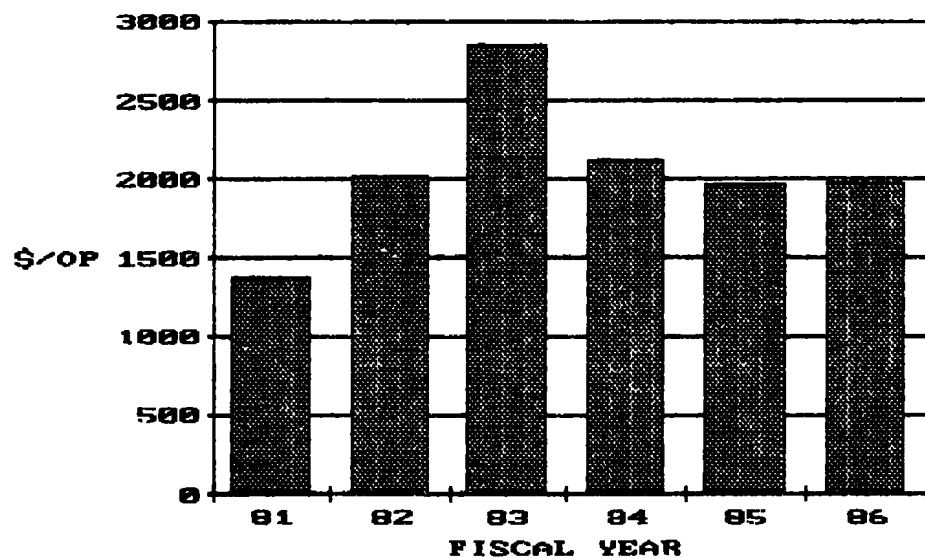
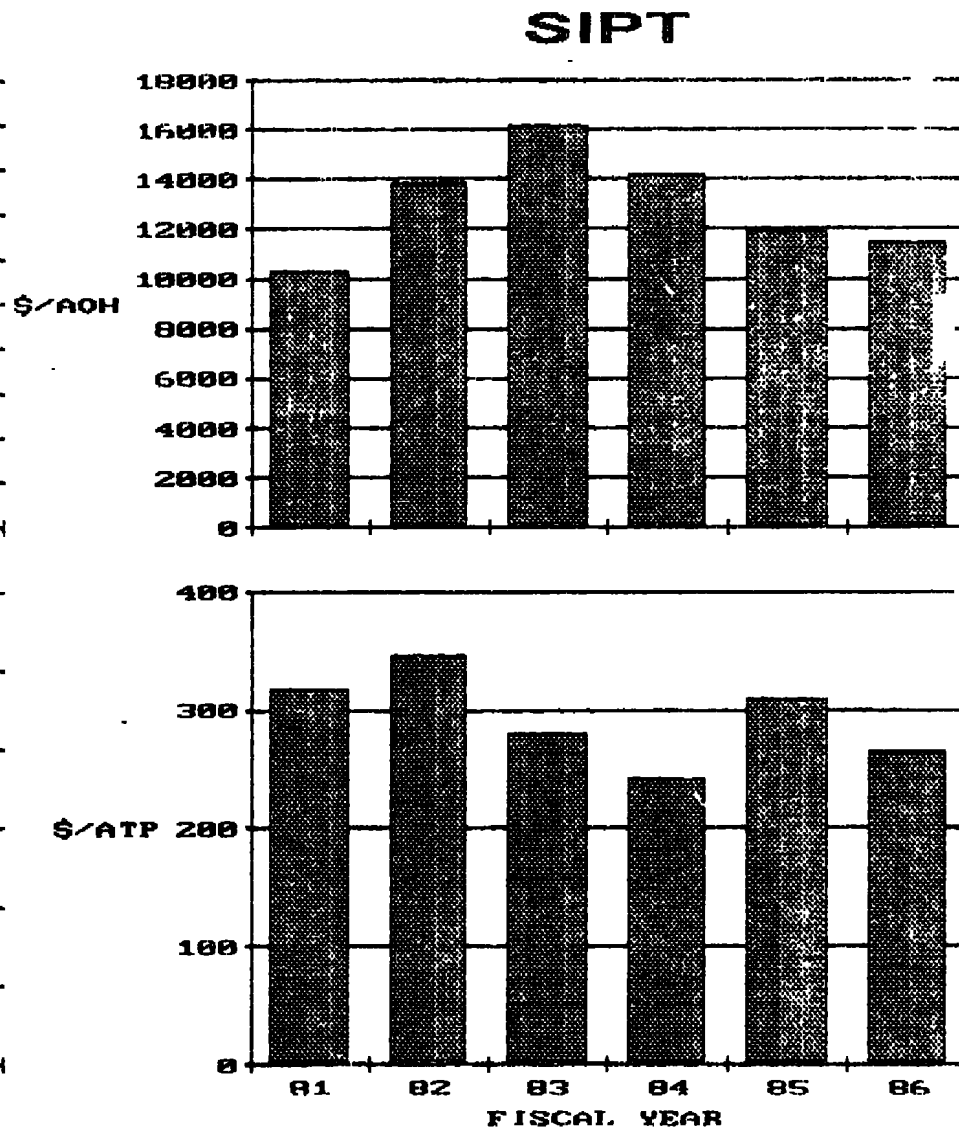
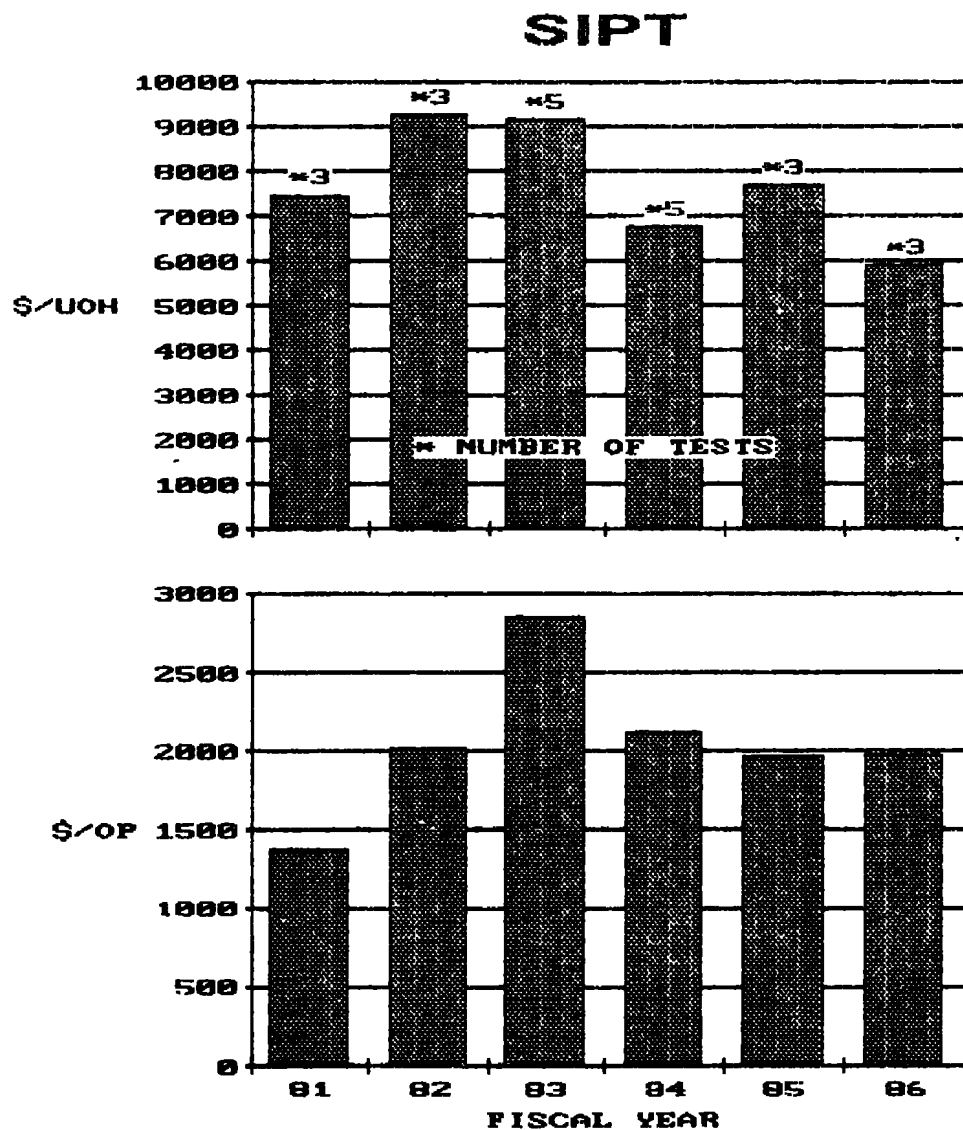


# PRST



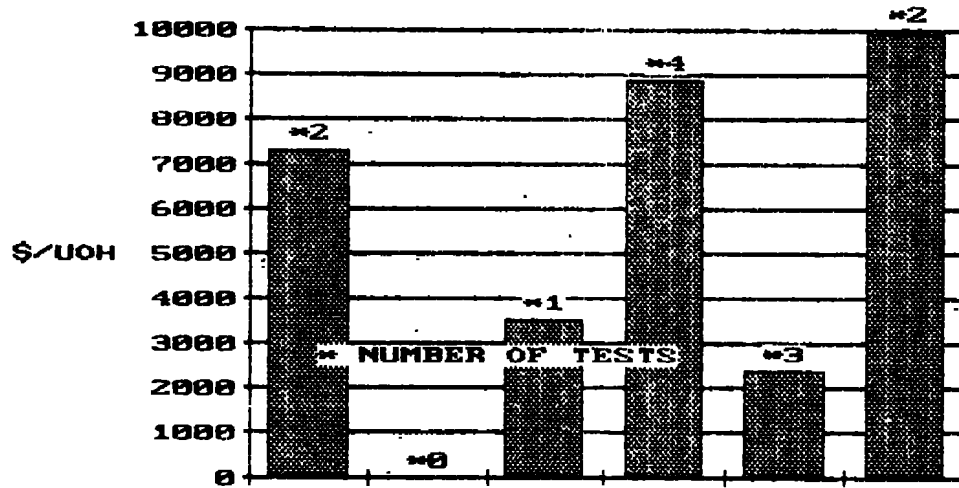
f...PRST

Figure 11. Continued



g. SIPT  
Figure 11. Concluded

## ALL TESTS



## ALL TESTS

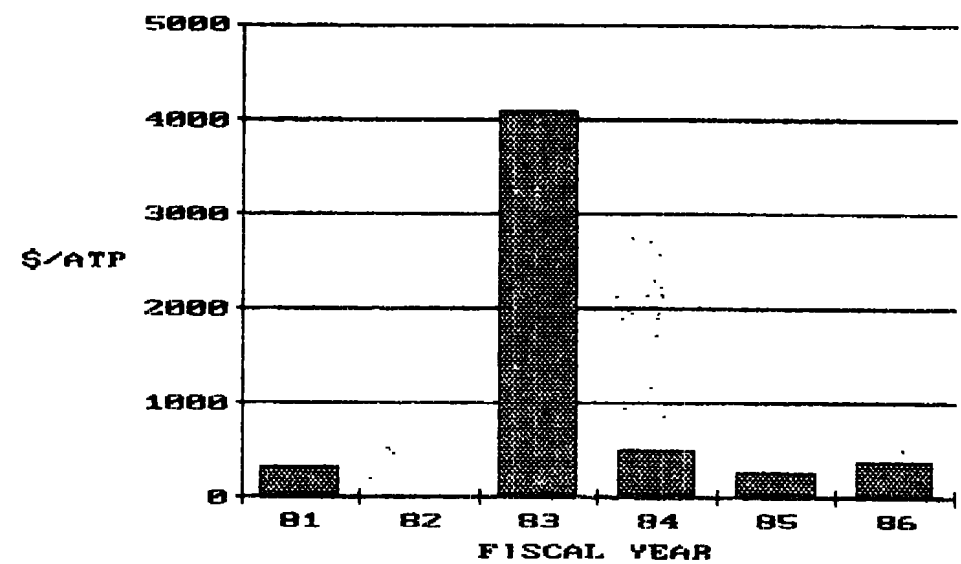
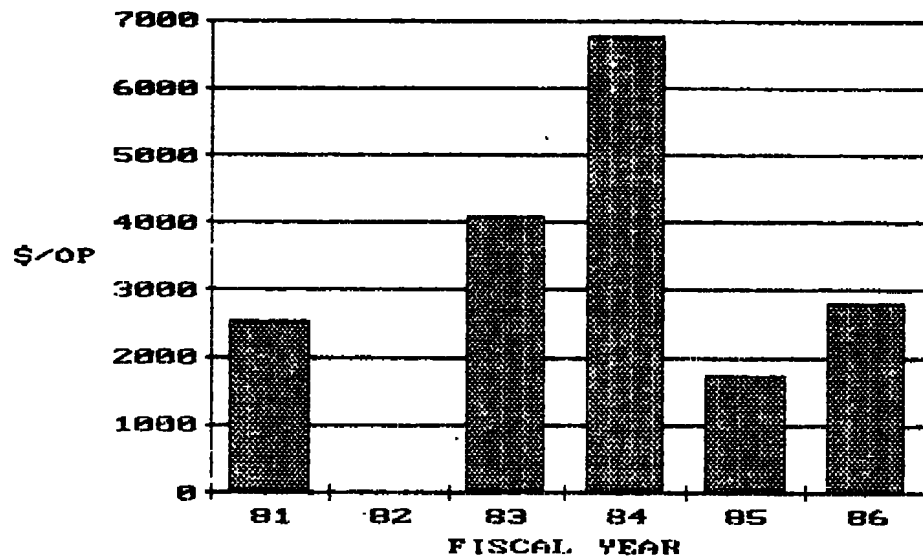
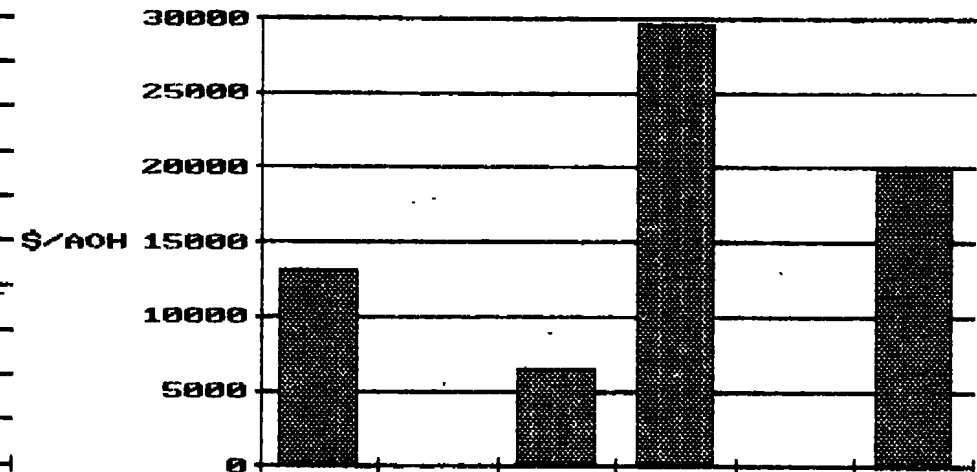


Figure 12. Operations Cost Statistics for Tunnel 16S (All Tests)

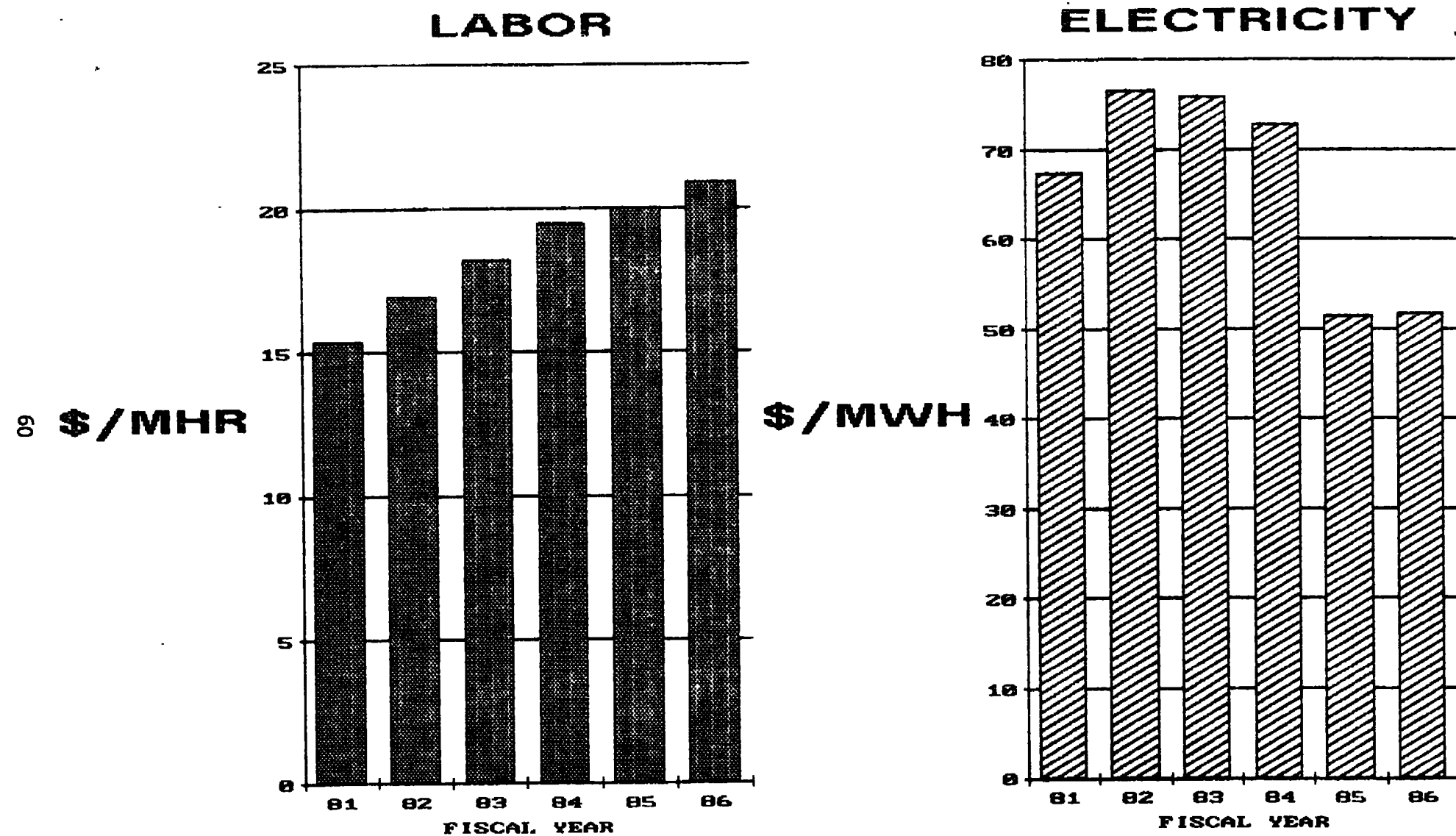
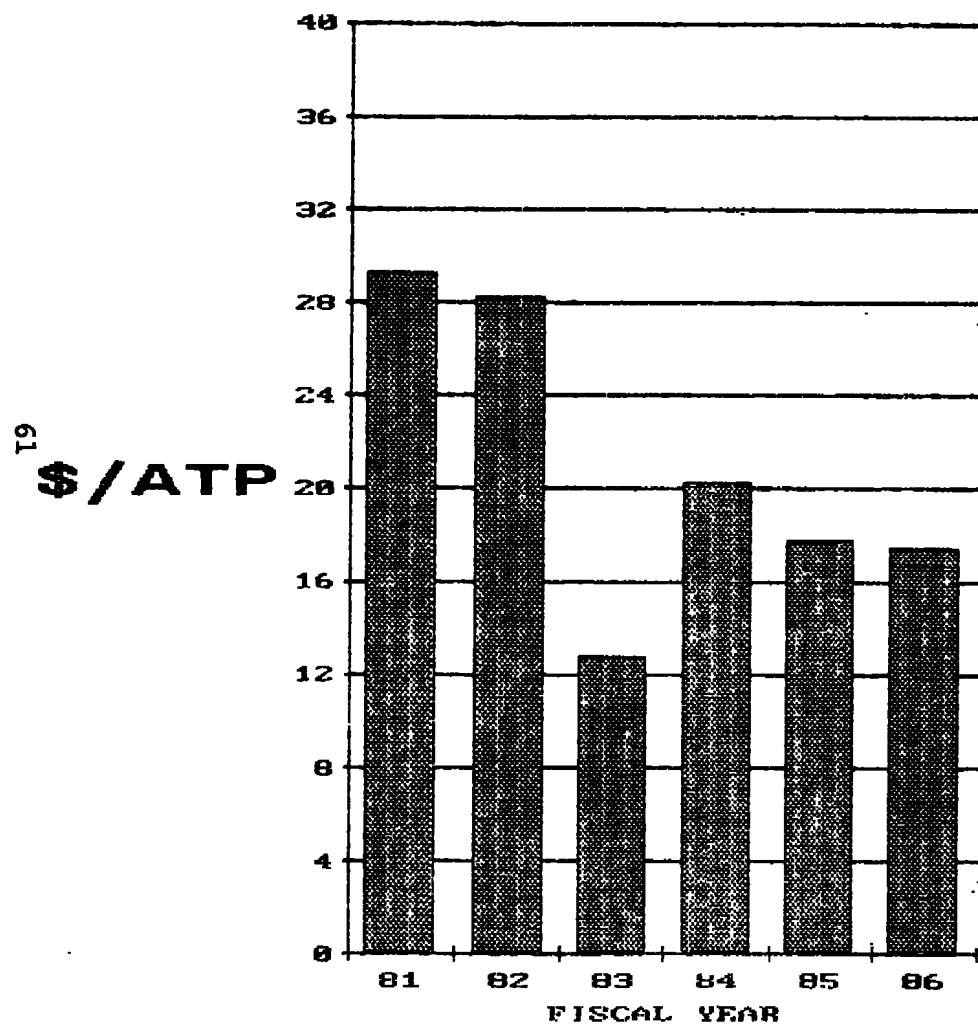
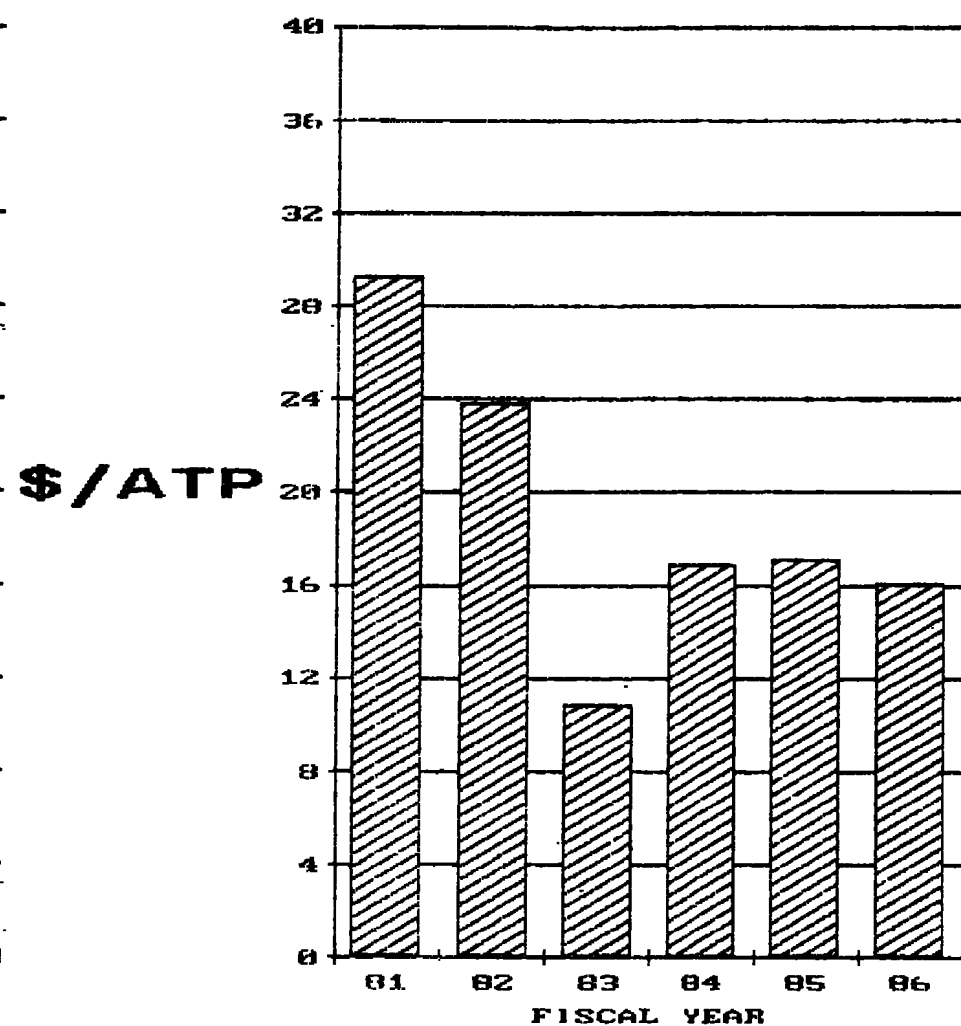


Figure 13. Average Manhour and Electricity Costs .

## ACTUAL



## NORMALIZED TO FY81

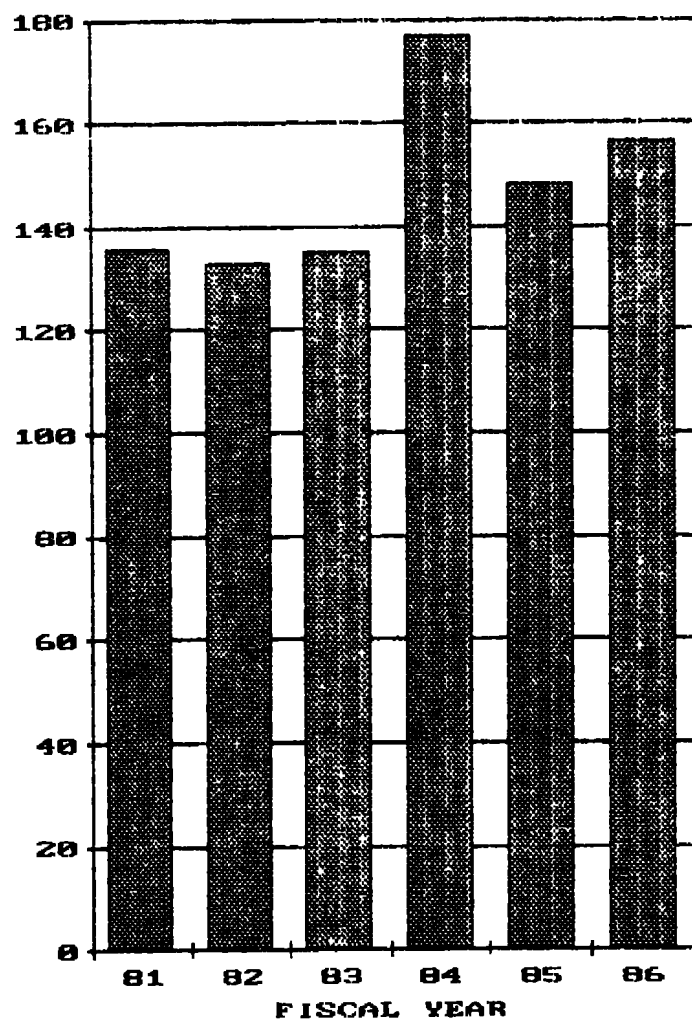


a. 4T

Figure 14. Effects of Labor and Electricity Cost Changes

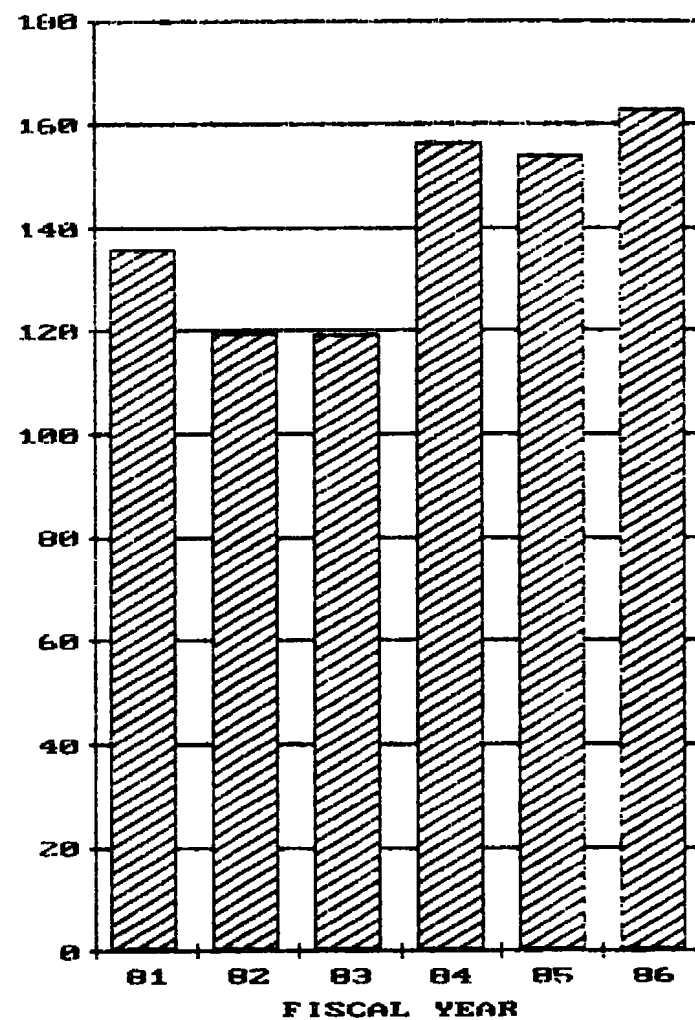
62  
\$/ATP

## ACTUAL



\$/ATP

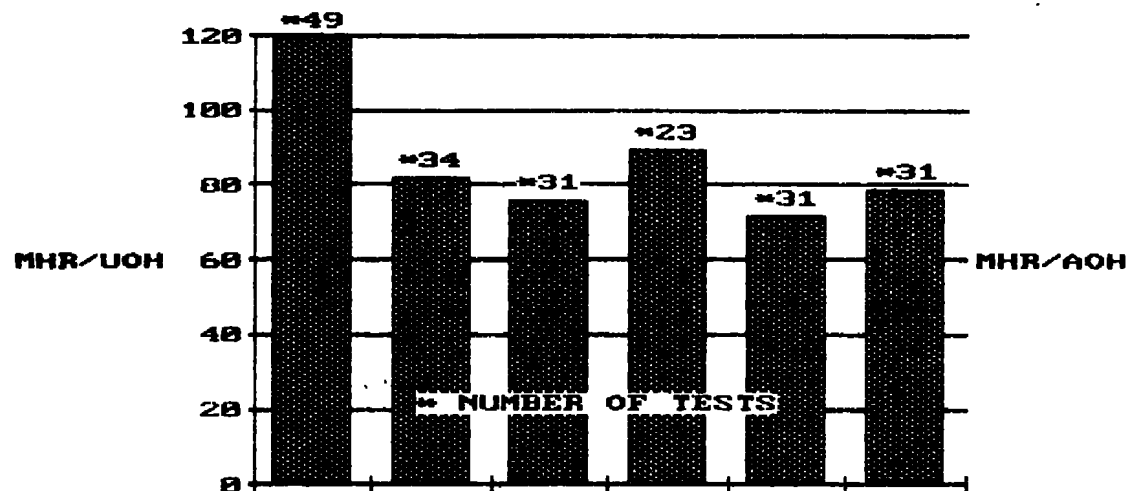
## NORMALIZED TO FY81



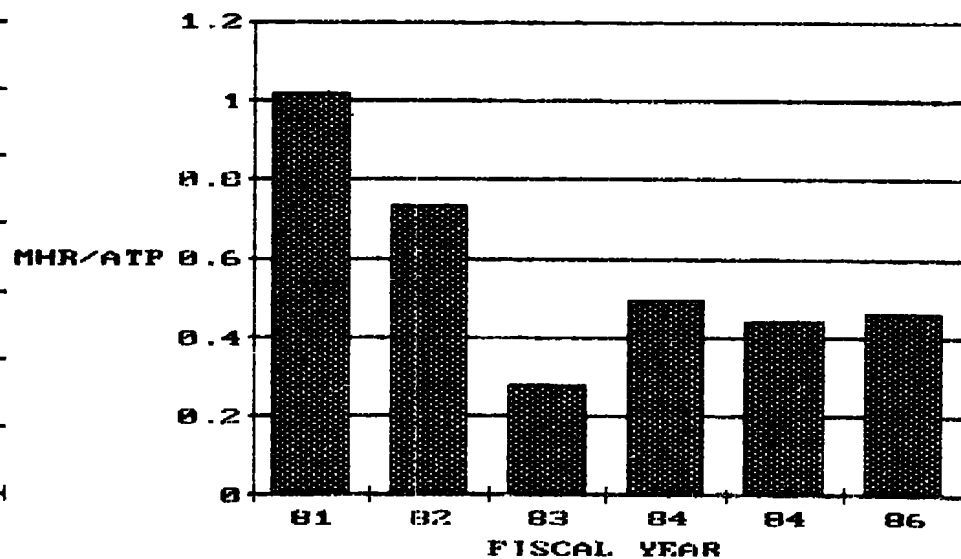
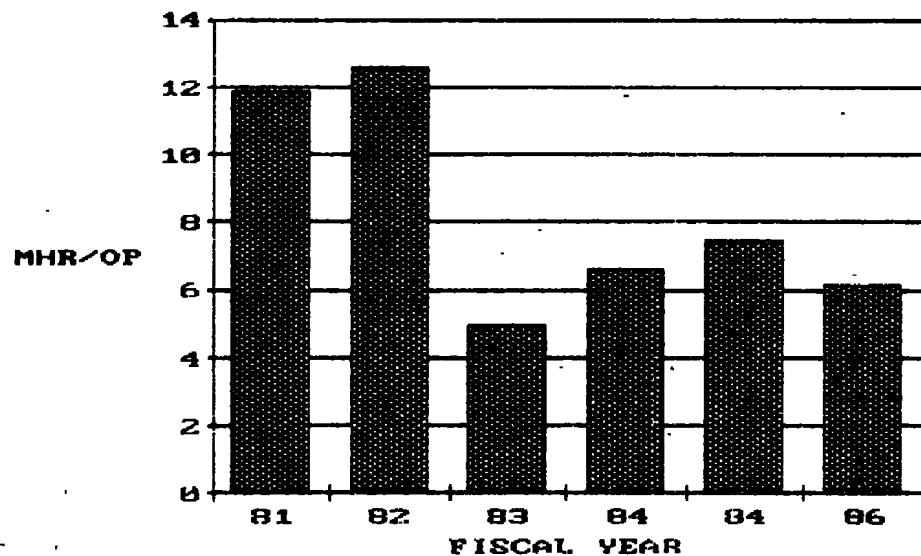
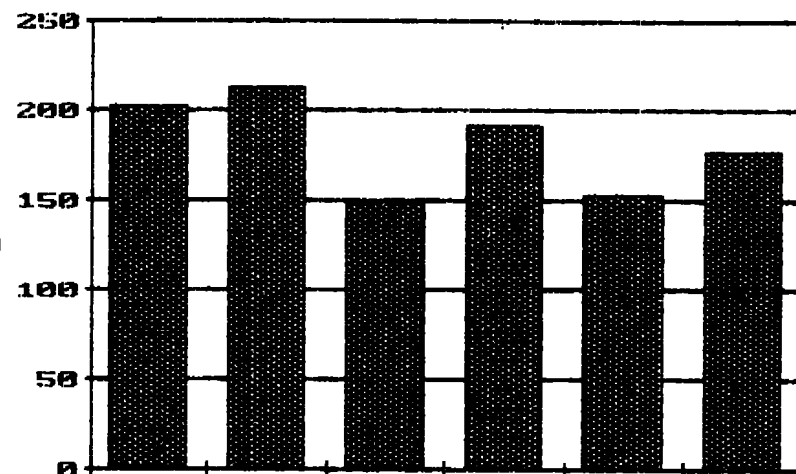
b. 16T

Figure 14. Concluded

## ALL TESTS

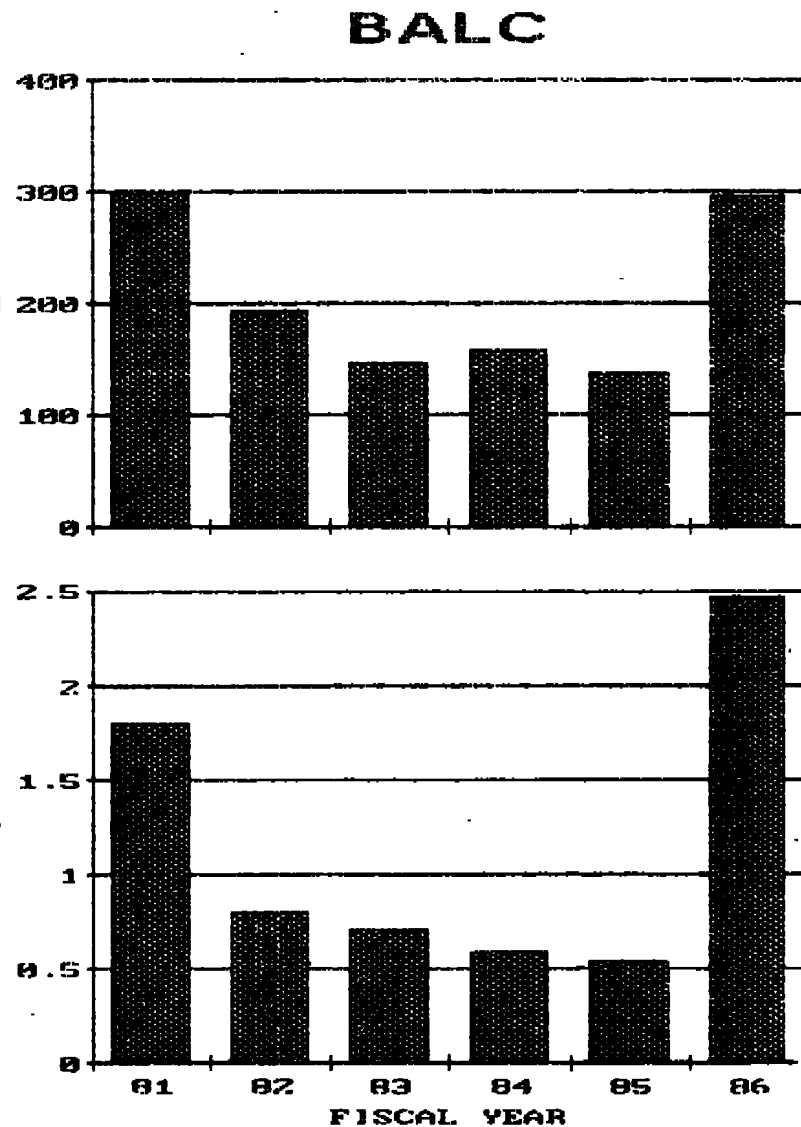
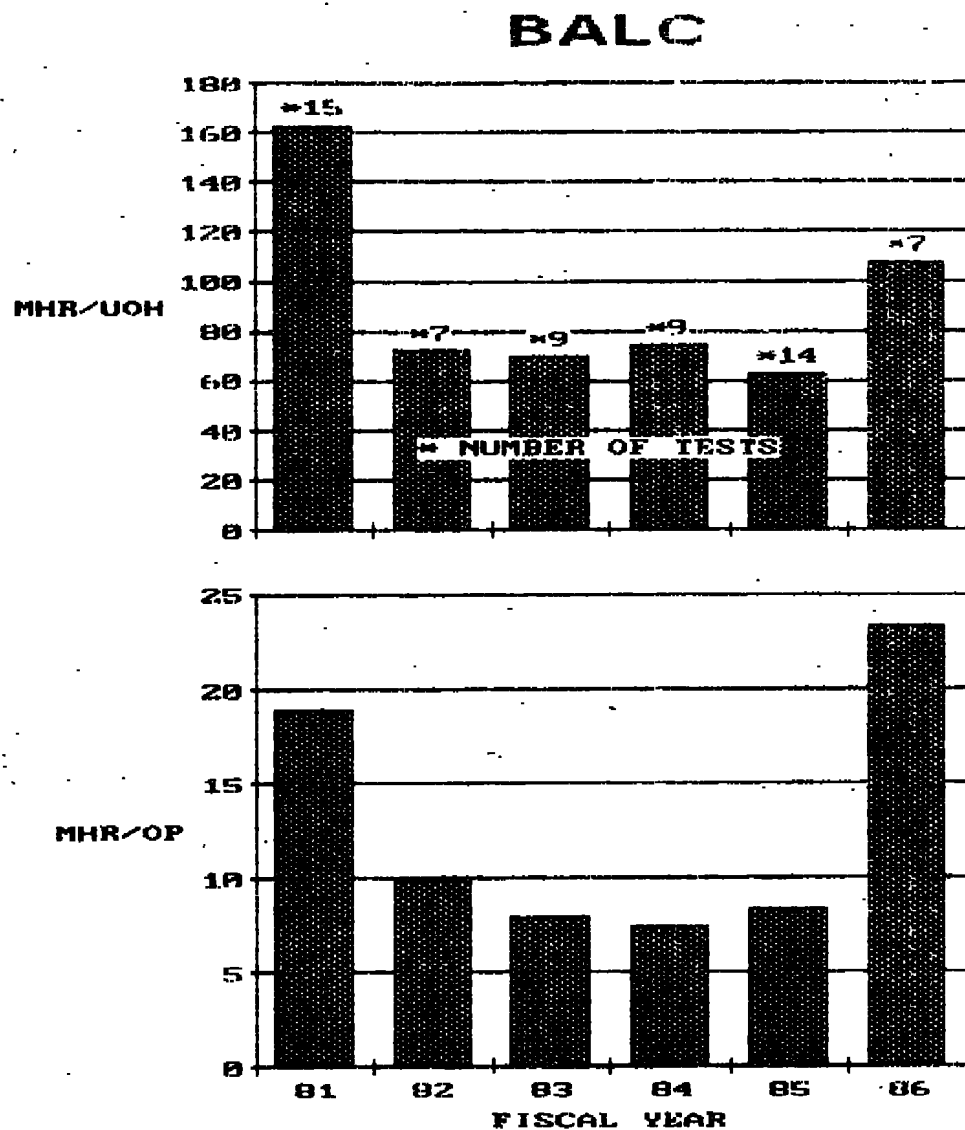


## ALL TESTS



a. All Tests

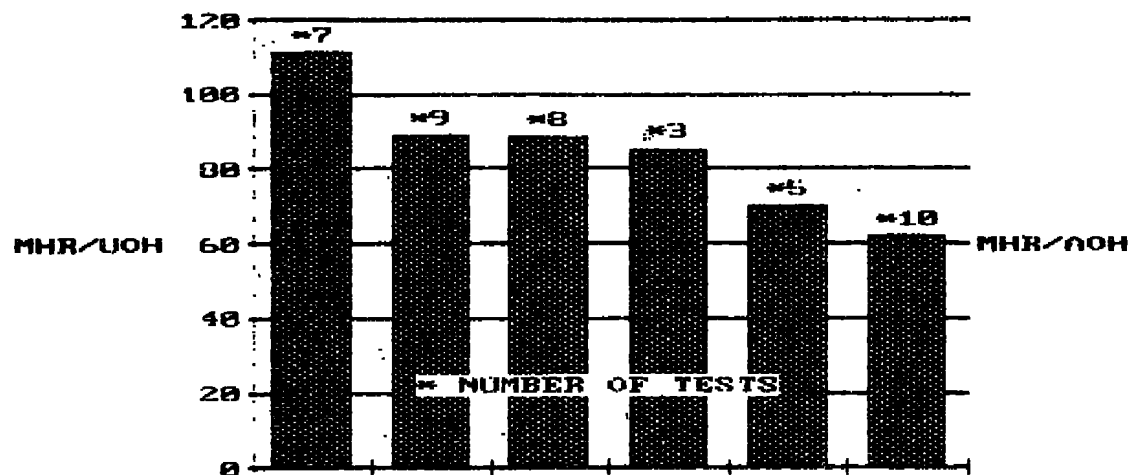
Figure 15. Manhour Statistics for Tunnel 4T



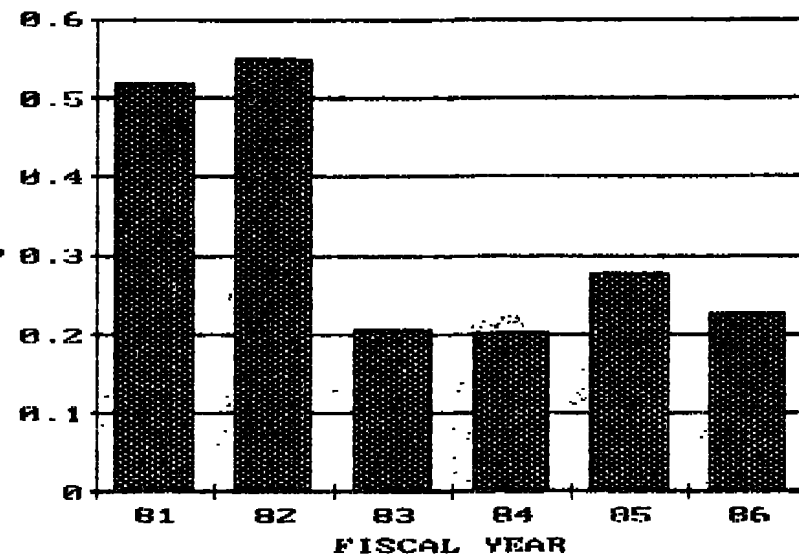
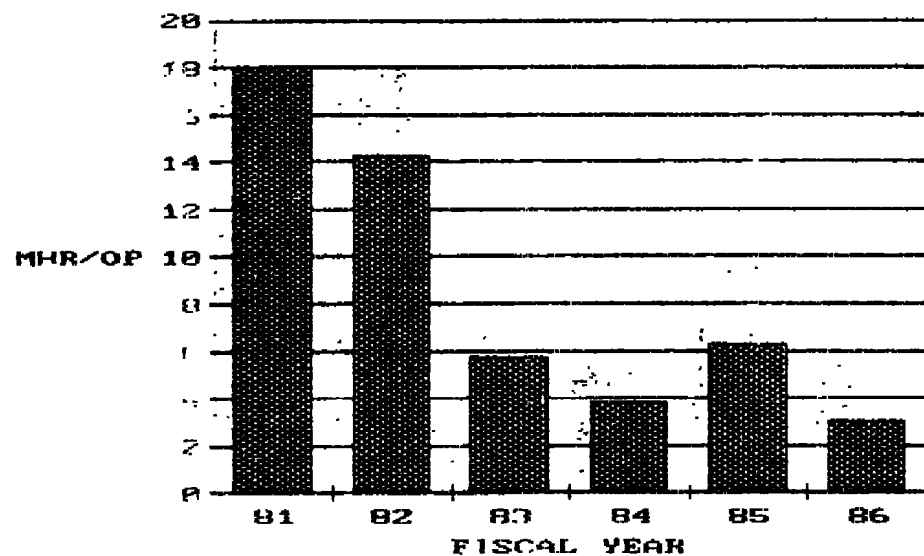
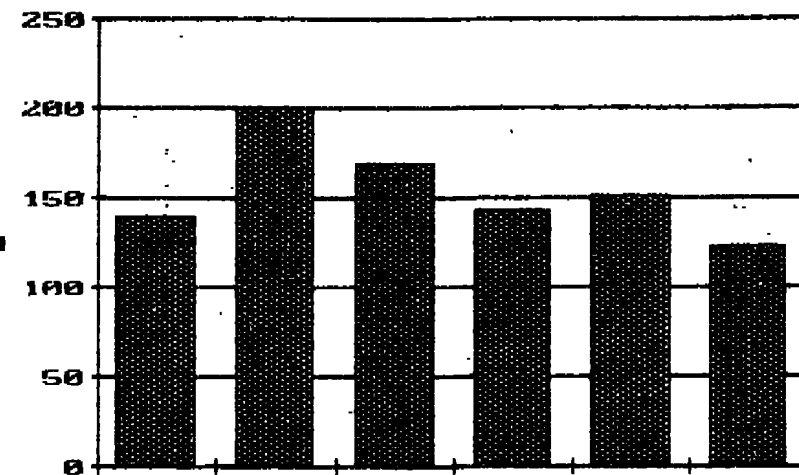
b. BALC  
Figure 15. Continued



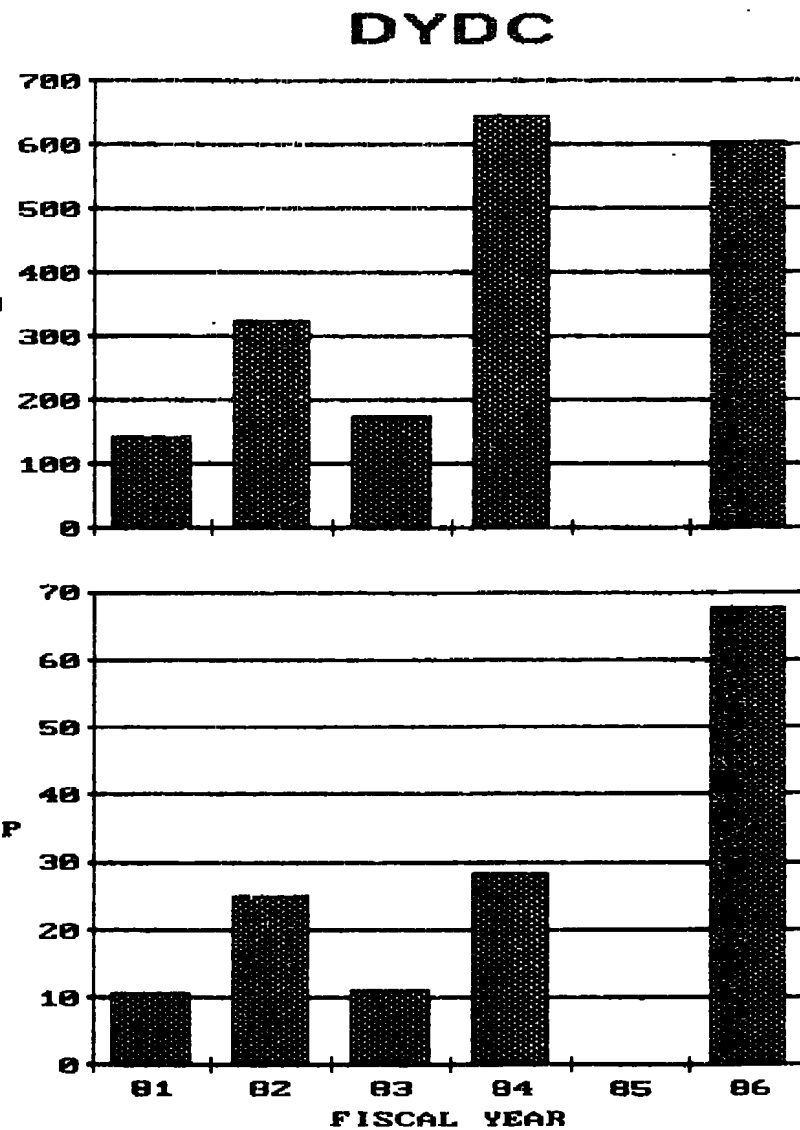
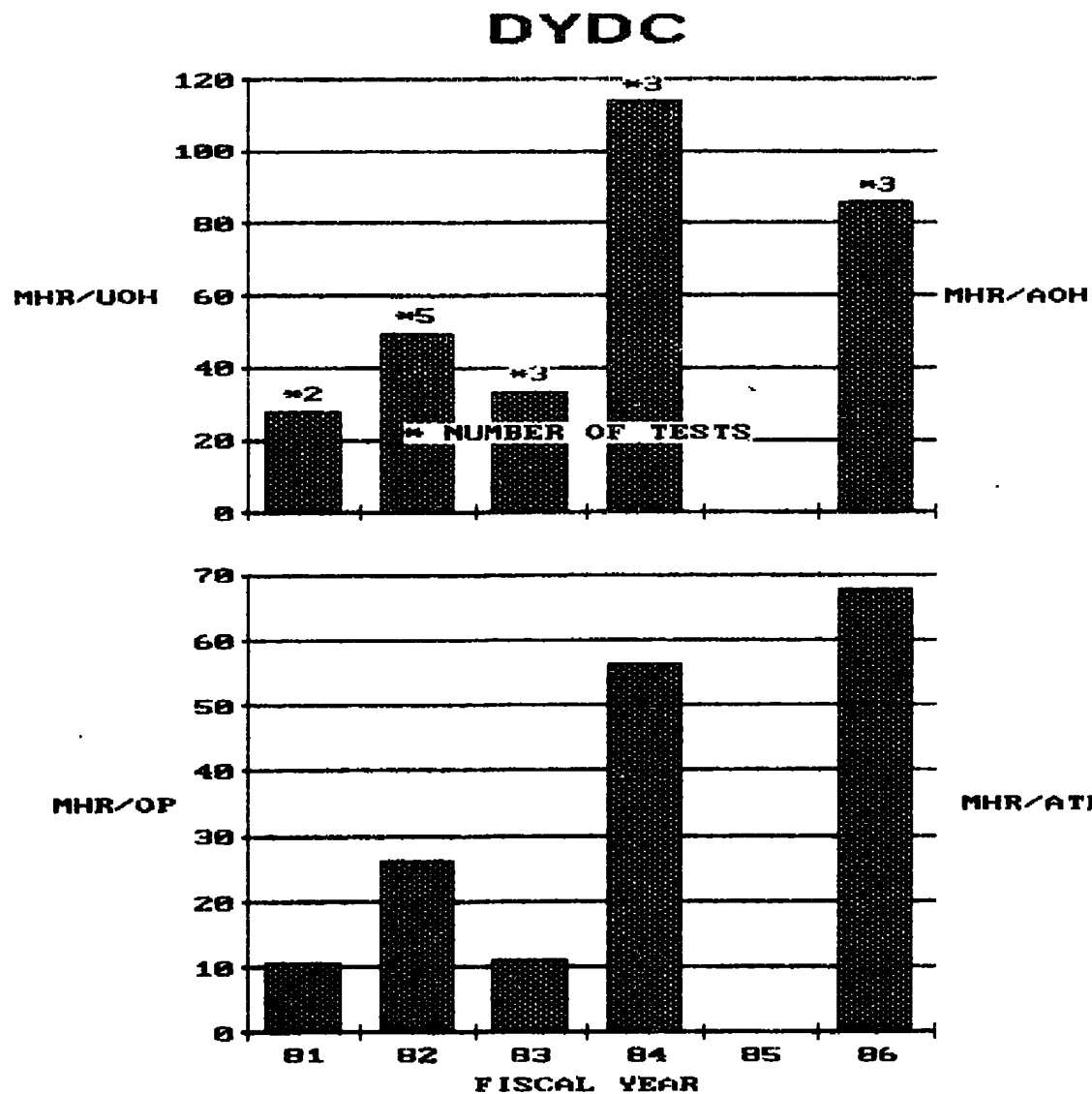
## CTSC



## CTSC

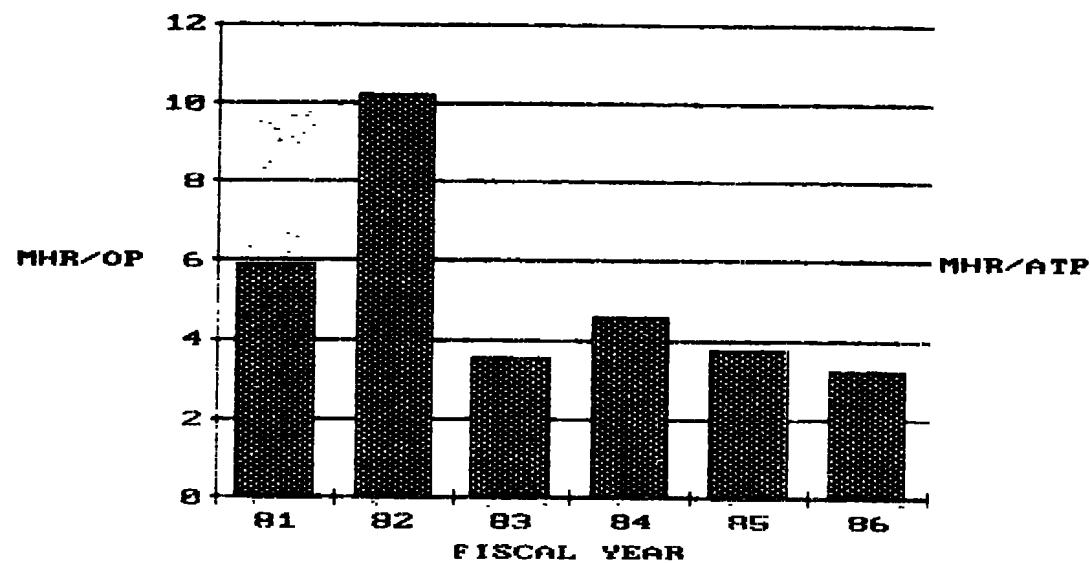
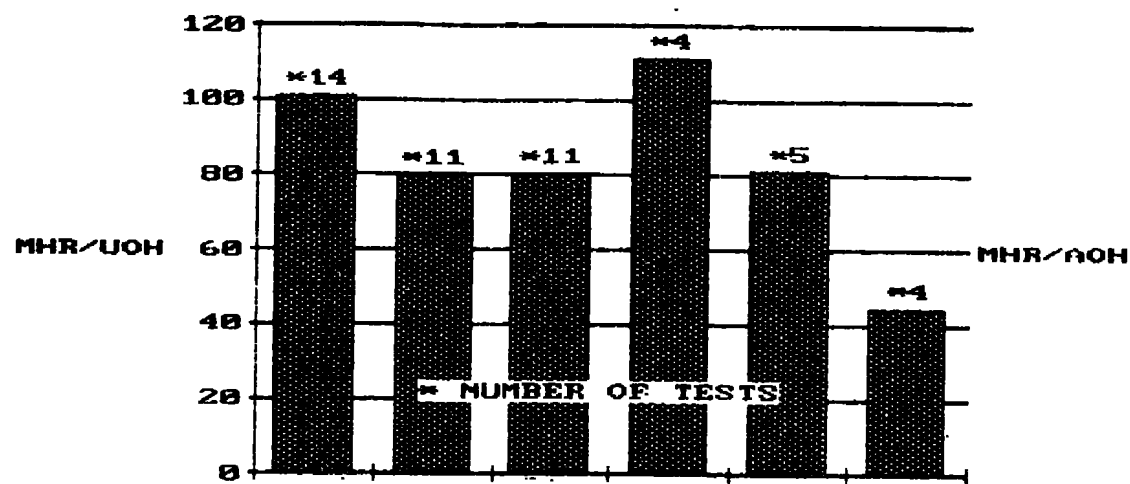


c. CTSC  
Figure 15. Continued

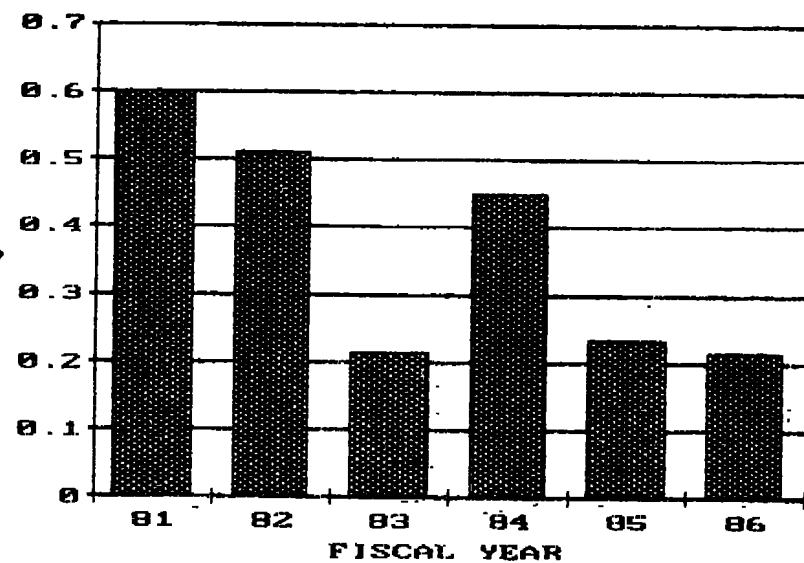
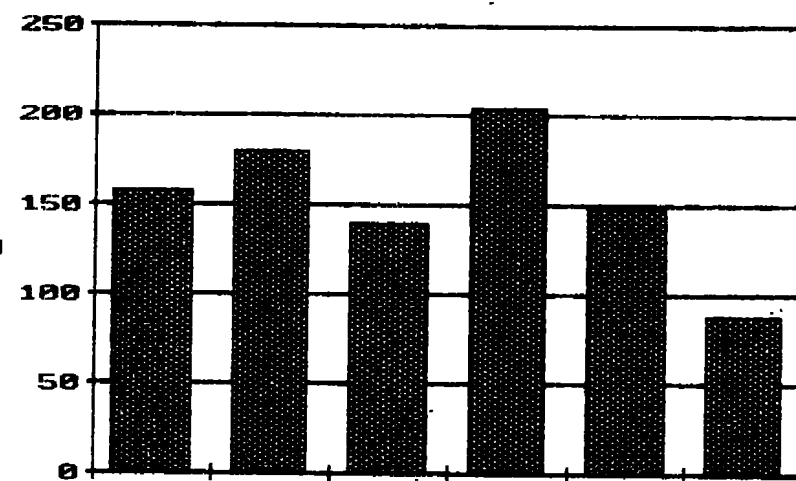


d. DYDC  
Figure 15. Continued

## GRDC



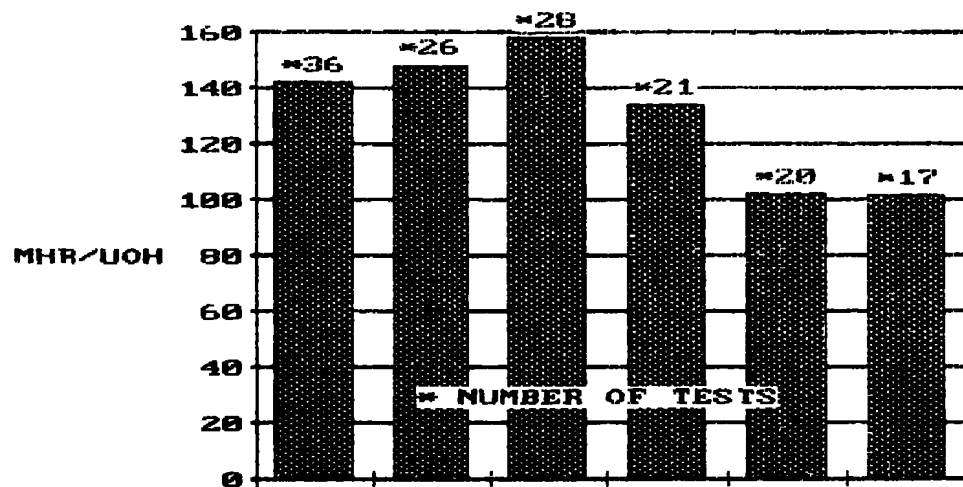
## GRDC



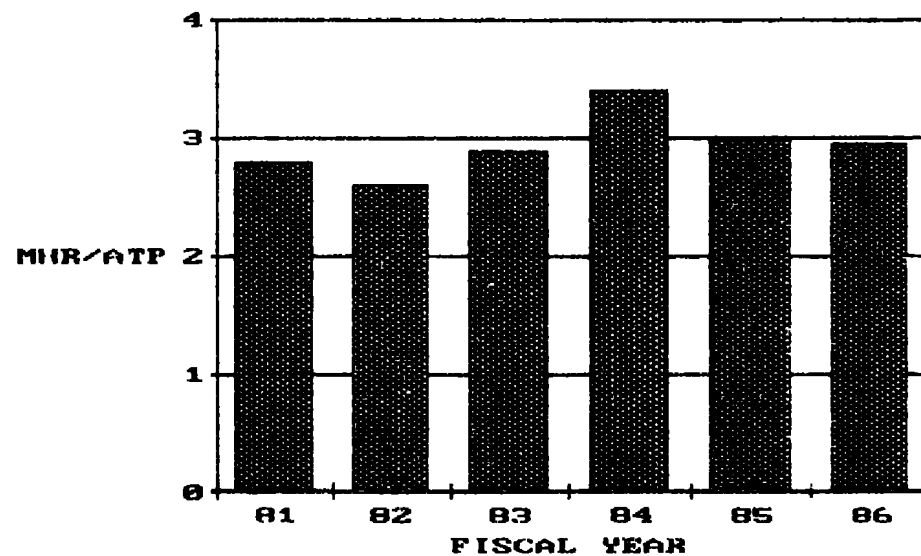
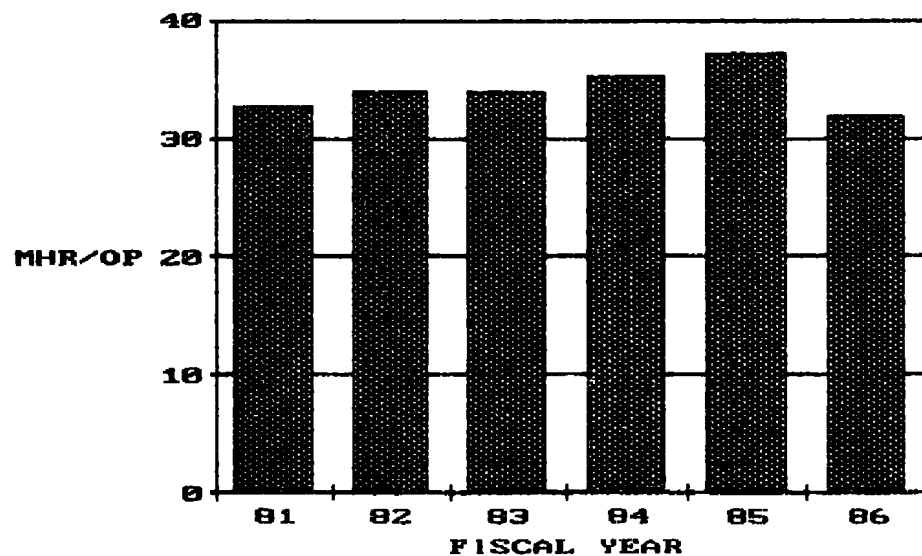
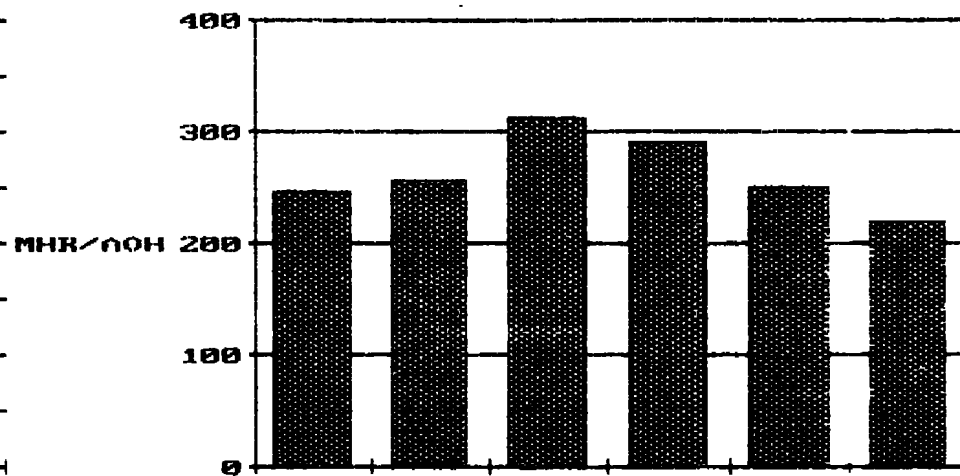
e. GRDC

Figure 15. Concluded

# ALL TESTS



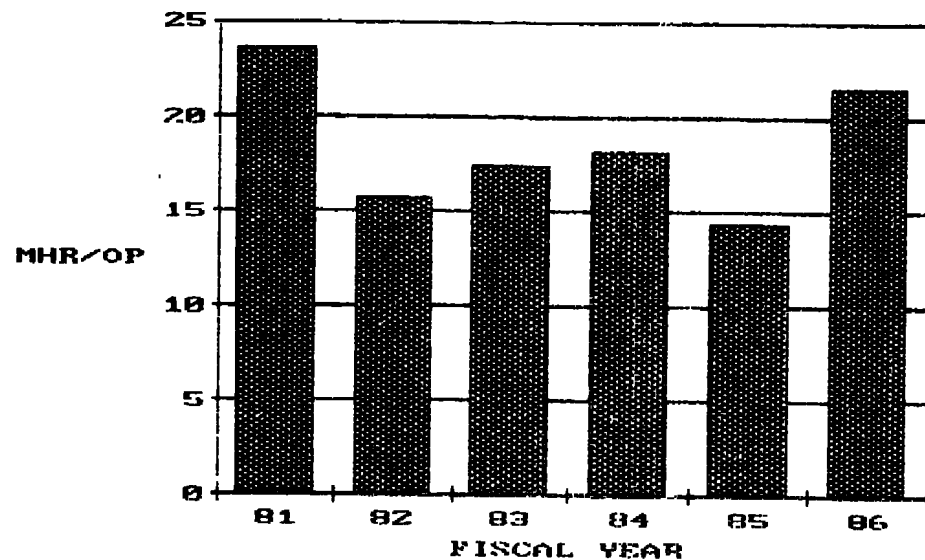
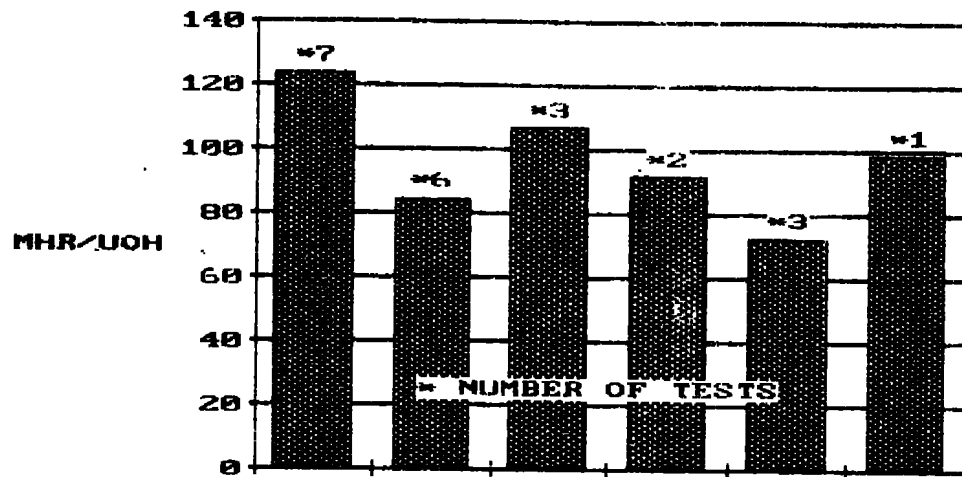
# ALL TESTS



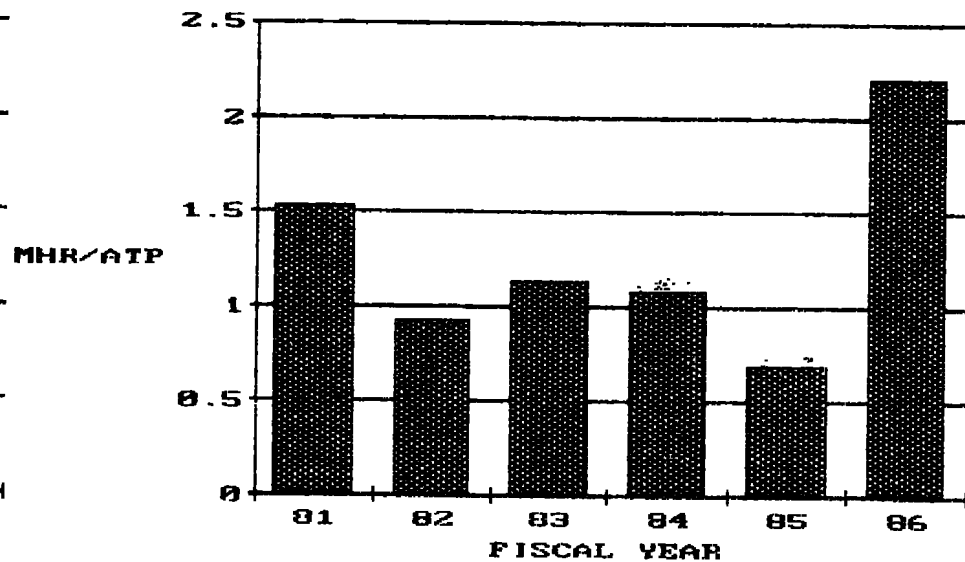
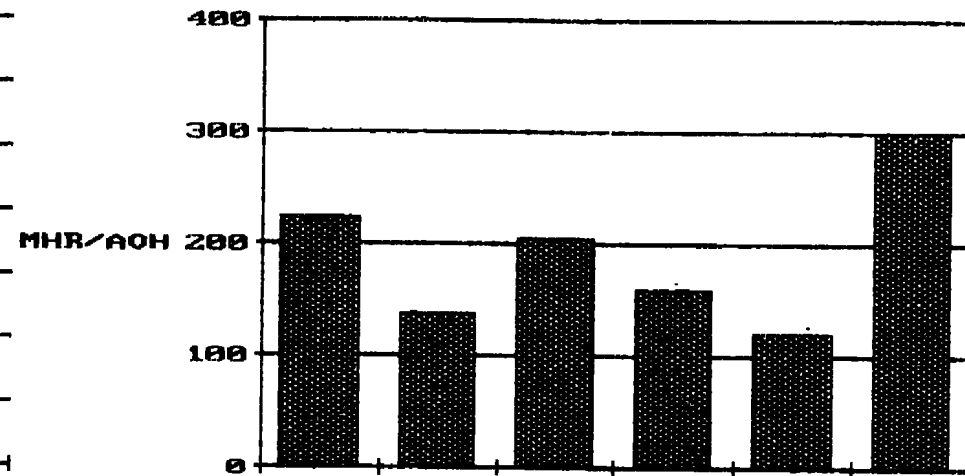
a. All Tests

Figure 16. Manhour Statistics for Tunnel 16T

# BALT



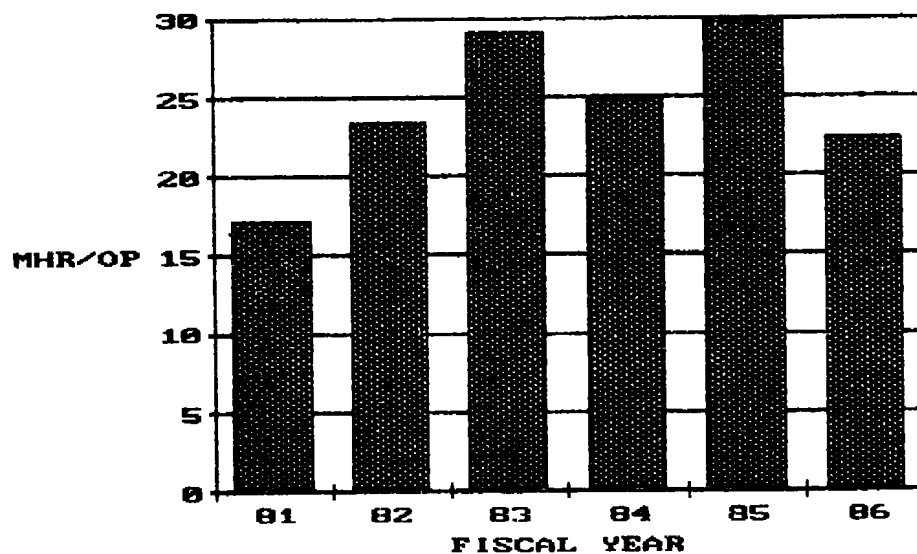
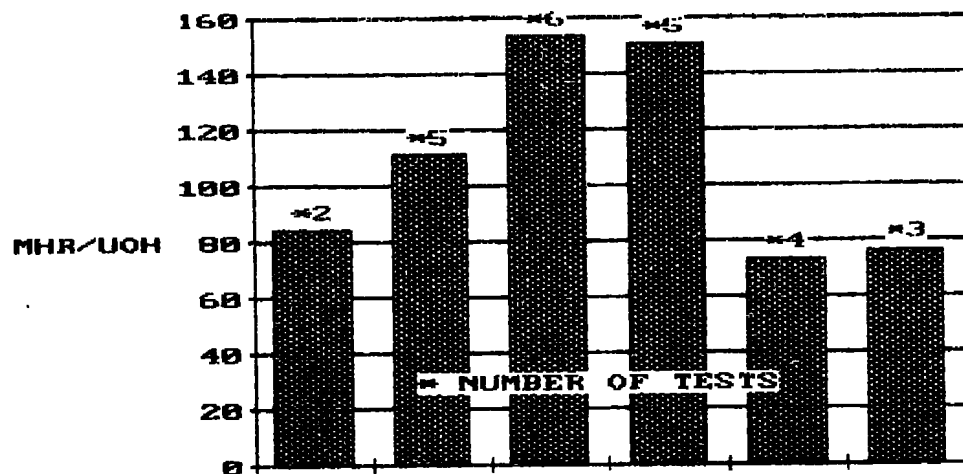
# BALT



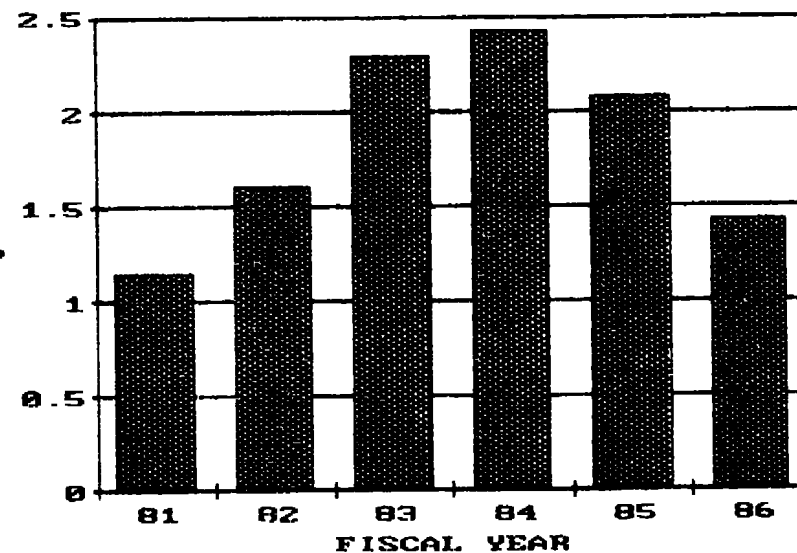
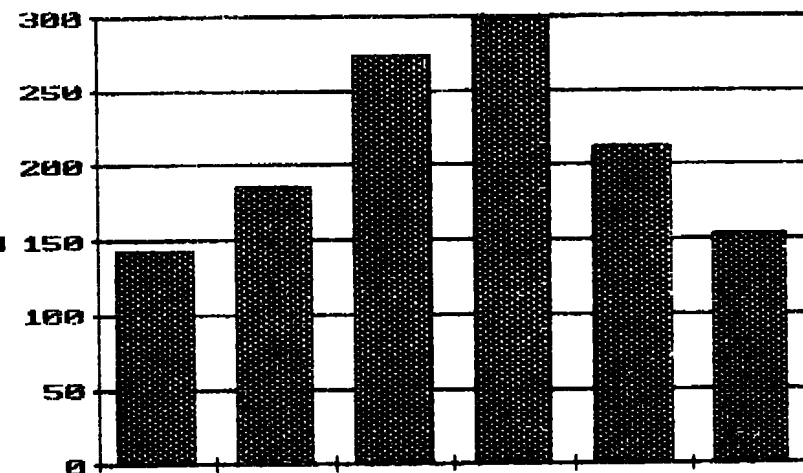
b. BALT

Figure 16. Continued

# BAPT



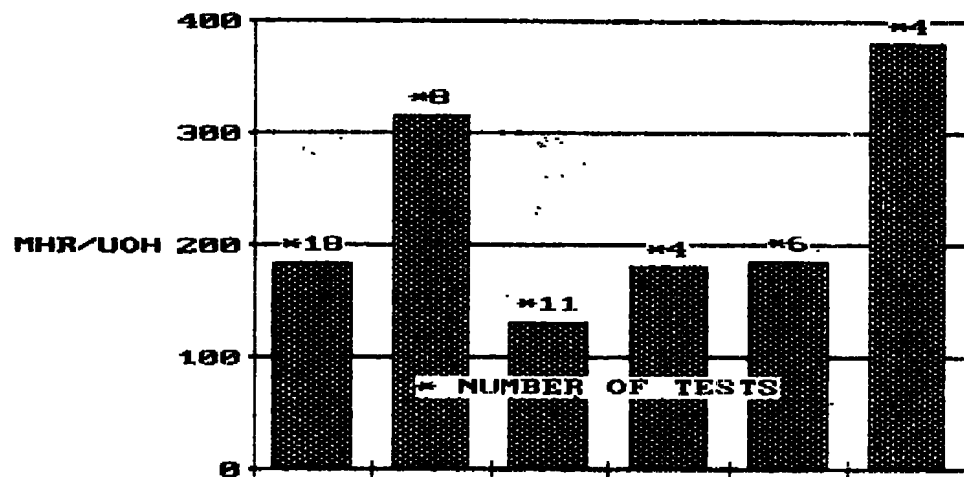
# BAPT



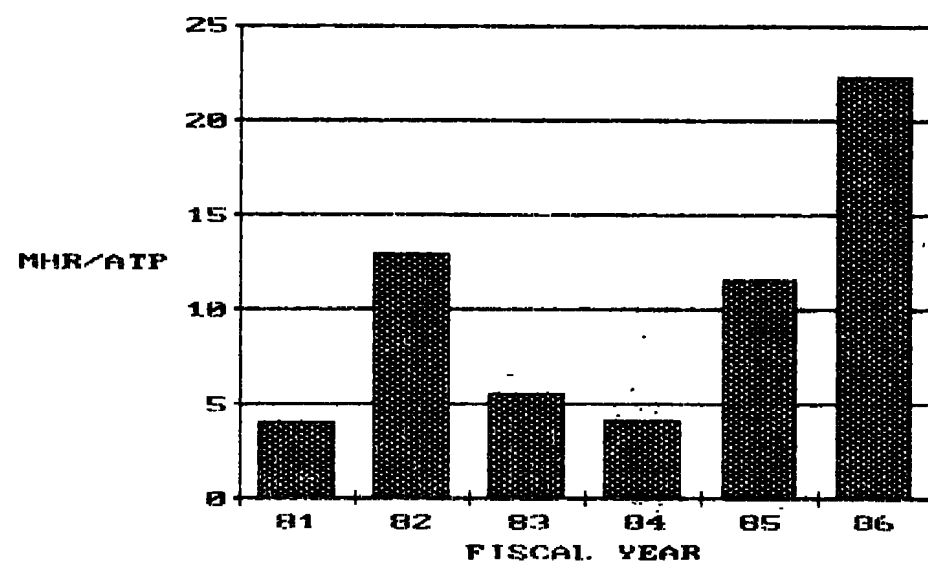
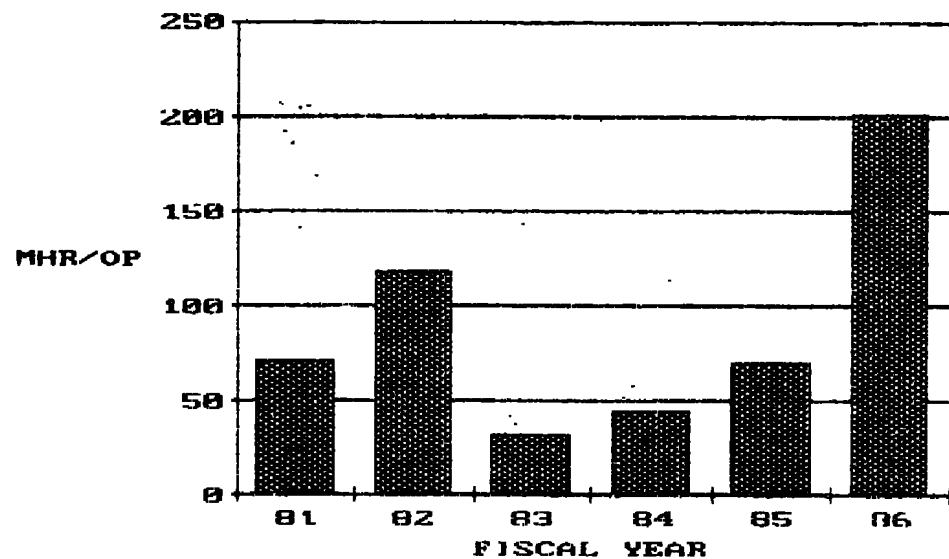
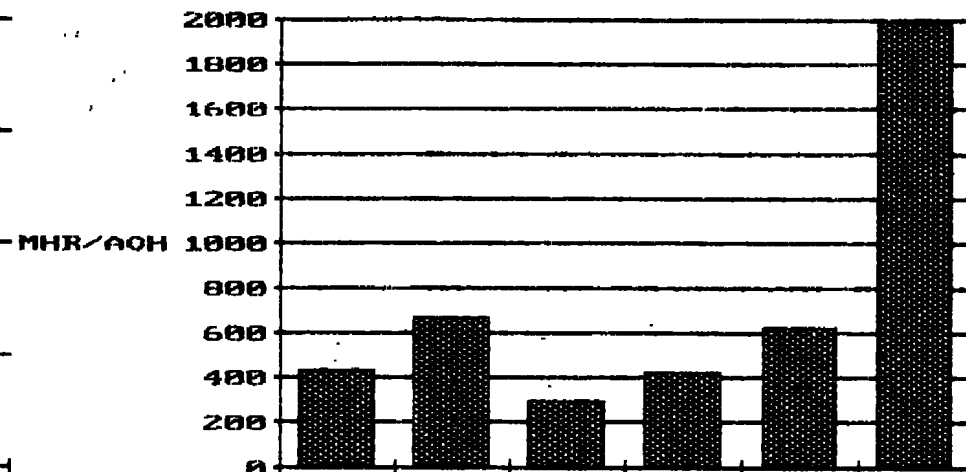
c. BAPT

Figure 16. Continued

# MIST

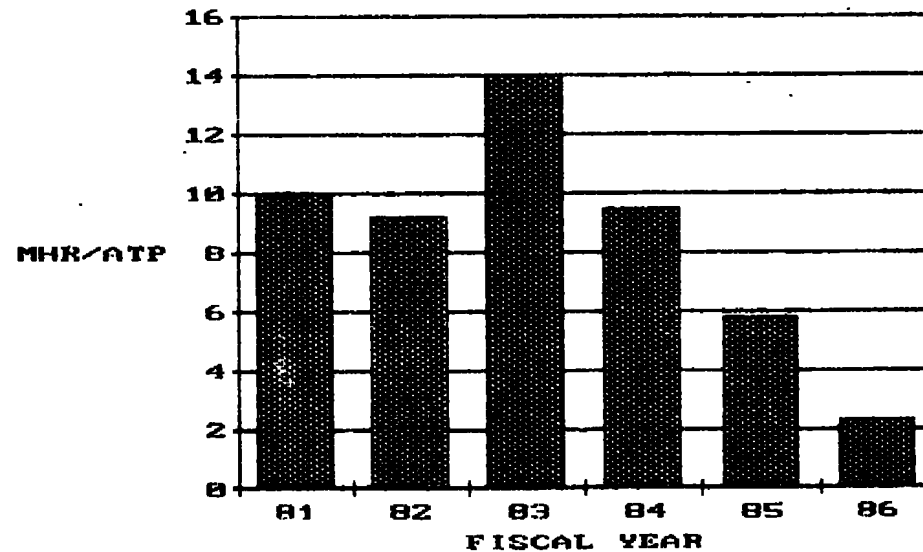
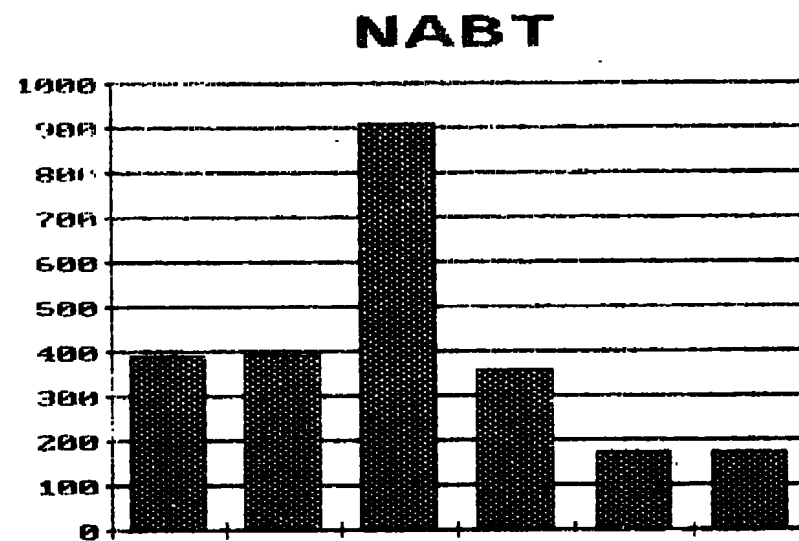
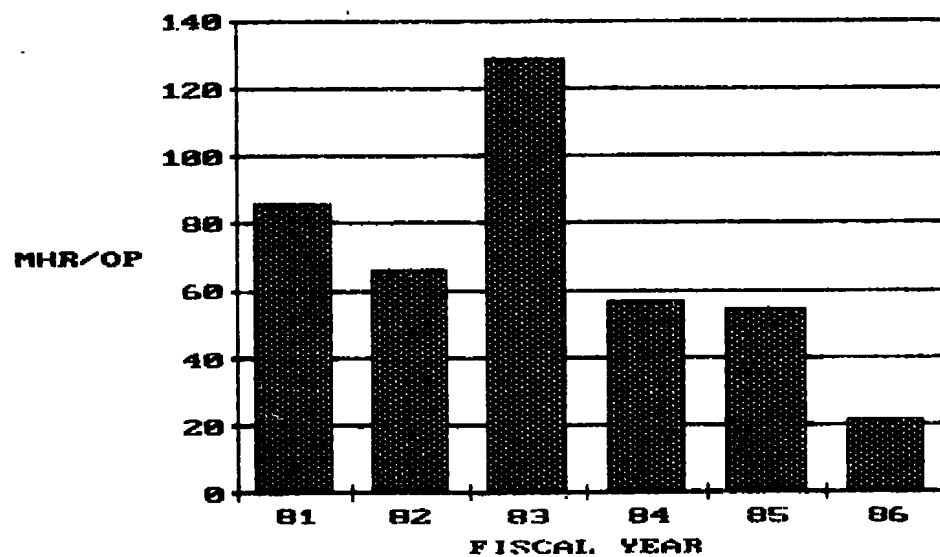
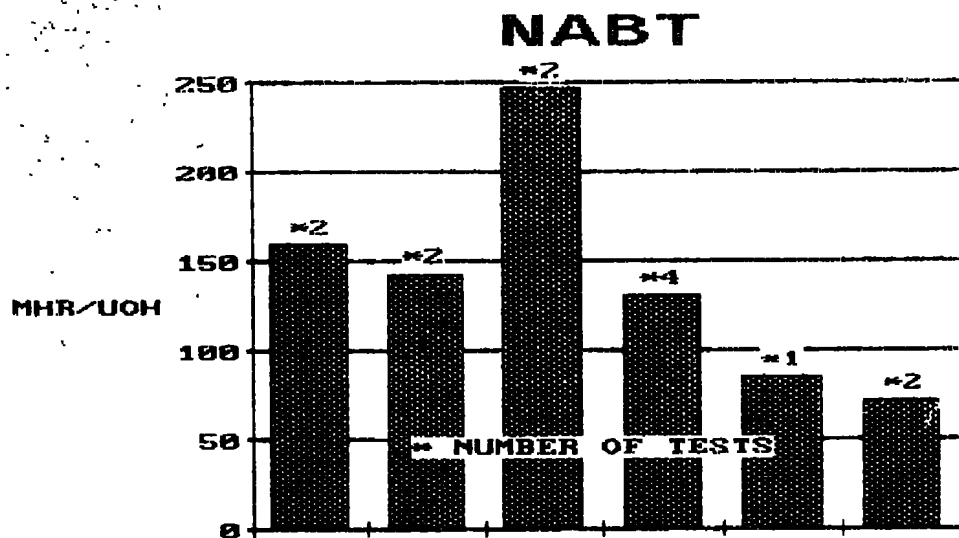


# MIST



d. MIST

Figure 16. Continued

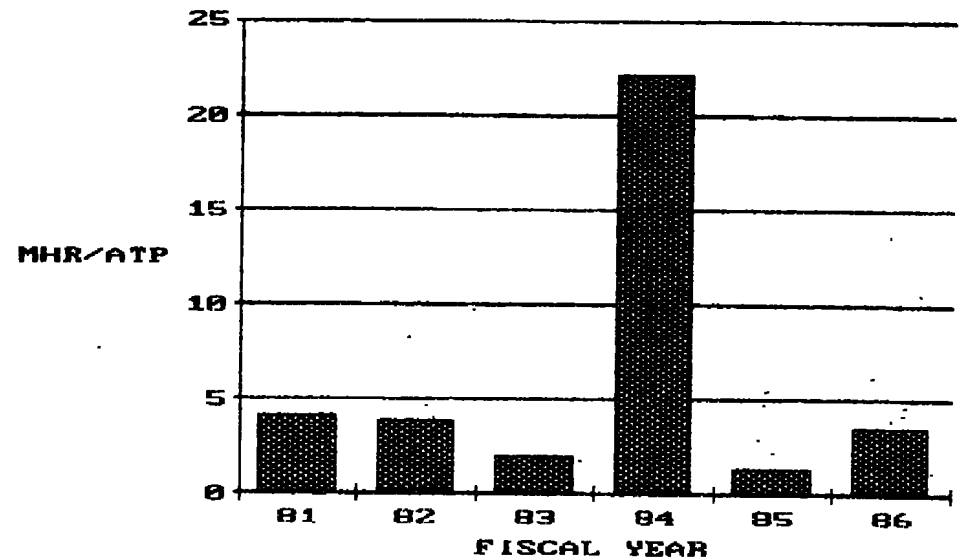
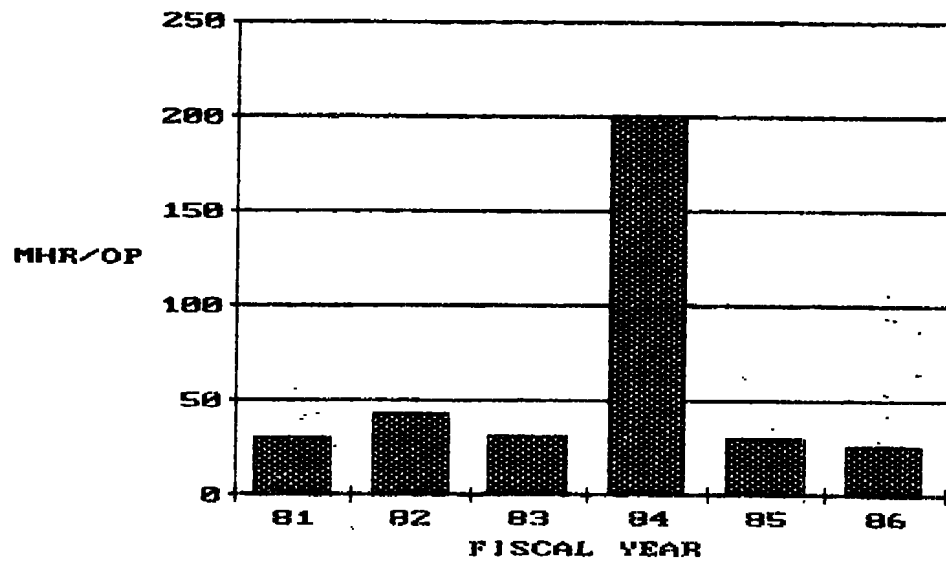
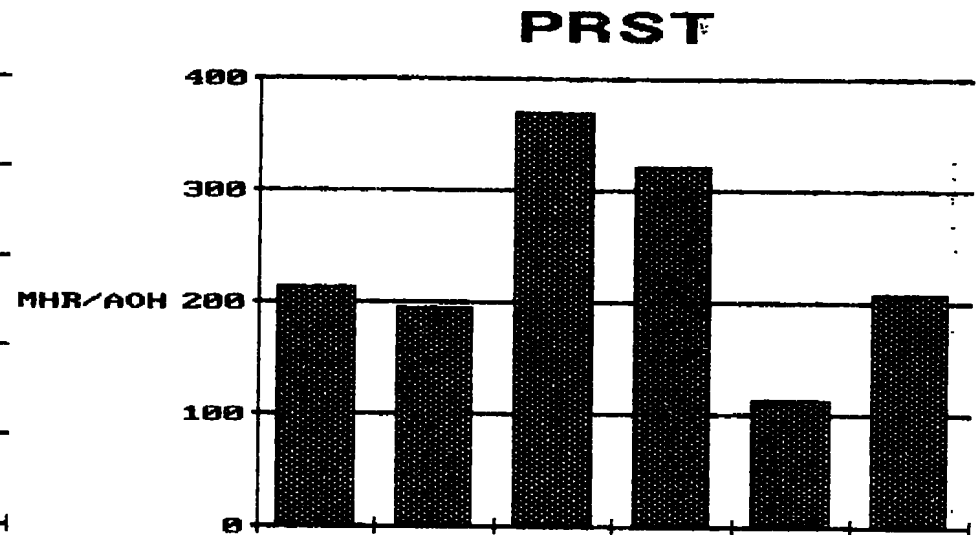
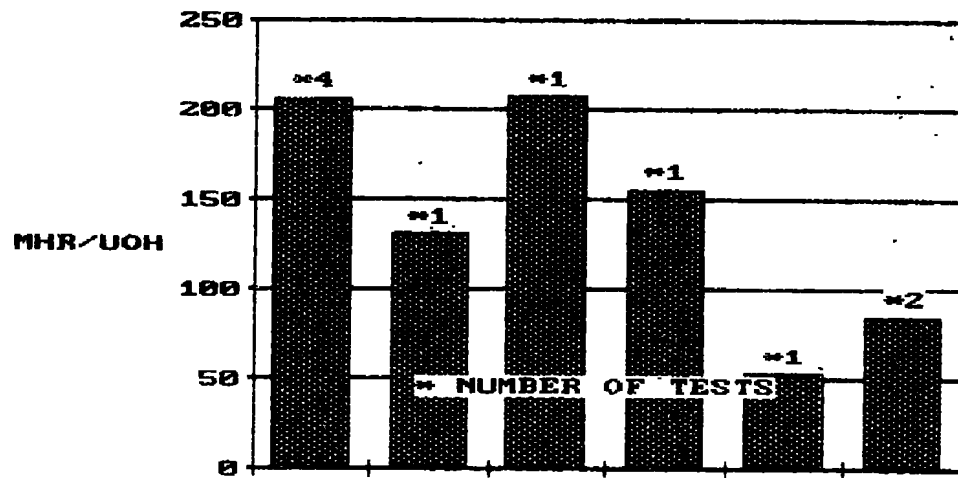


e. NABT

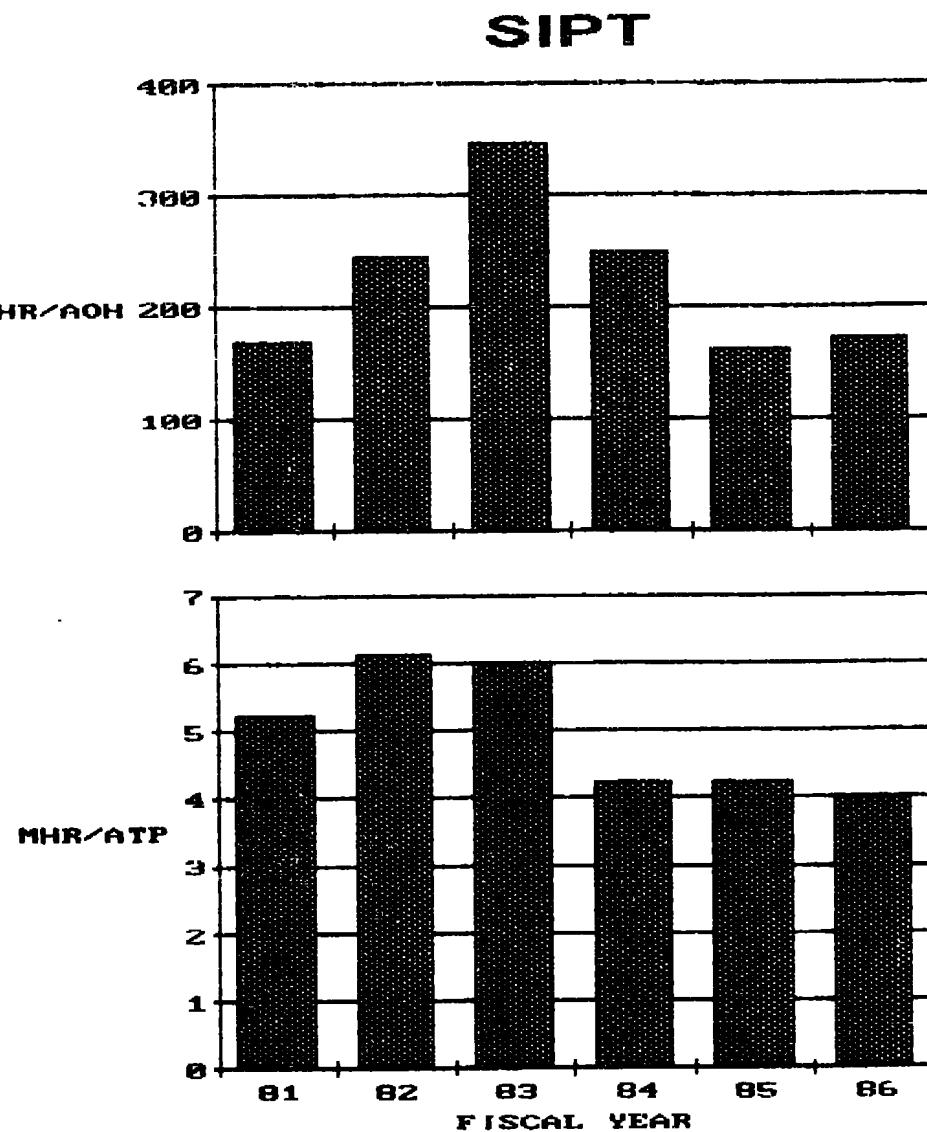
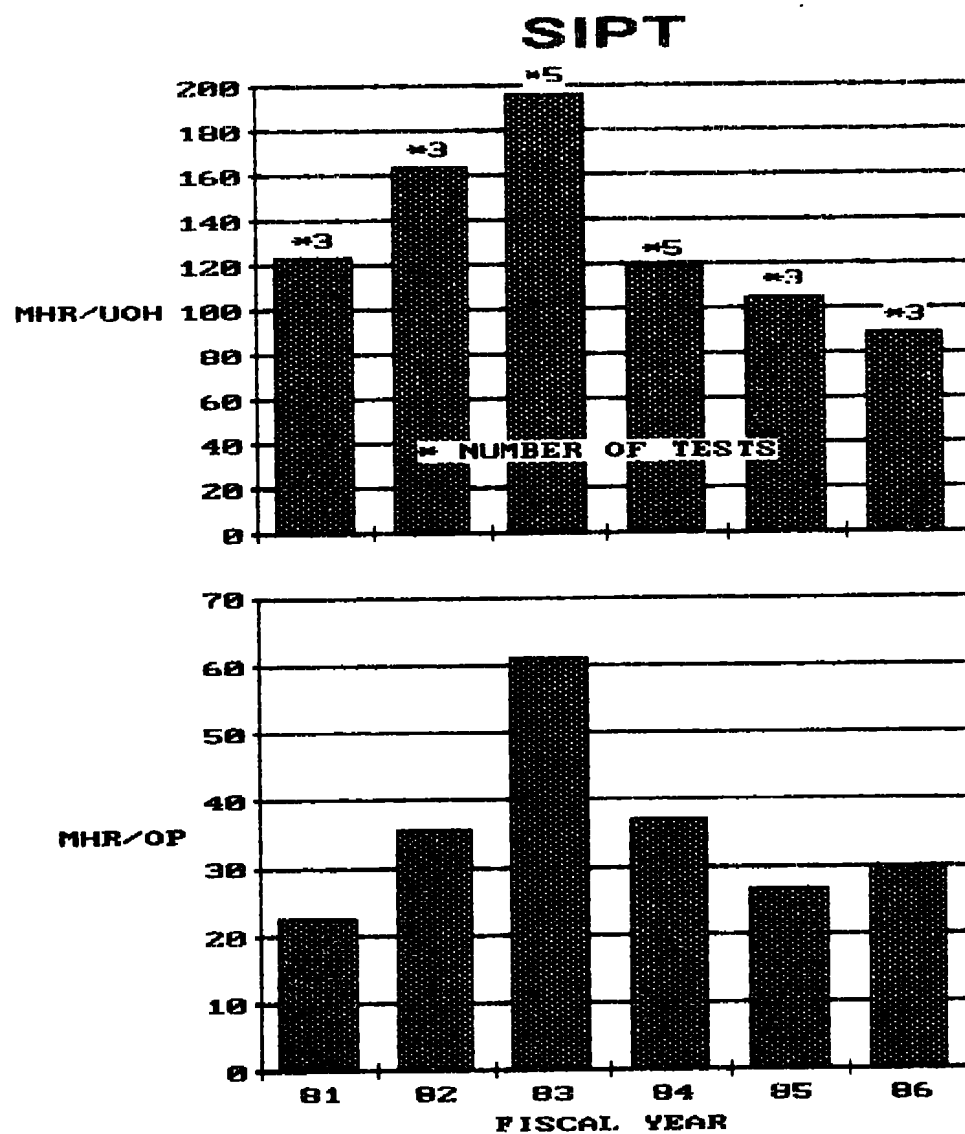
Figure 16. Continued



# PRST

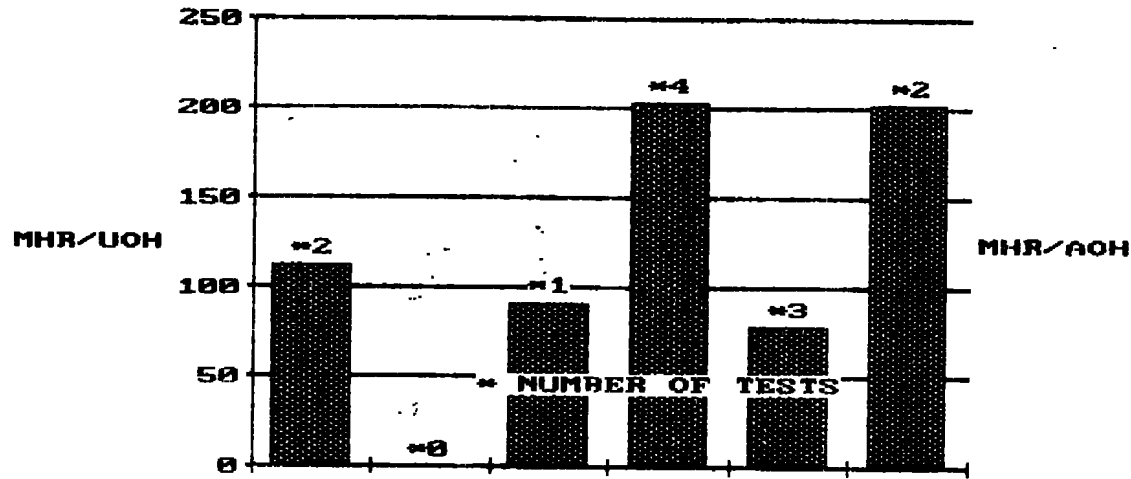


f. PRST  
Figure 16. Continued



g. SIPT  
Figure 16. Concluded

## ALL TESTS



## ALL TESTS

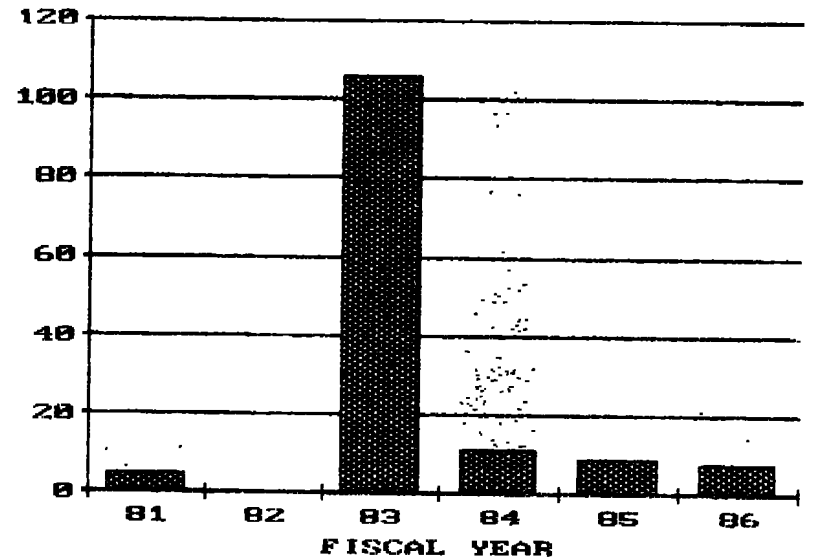
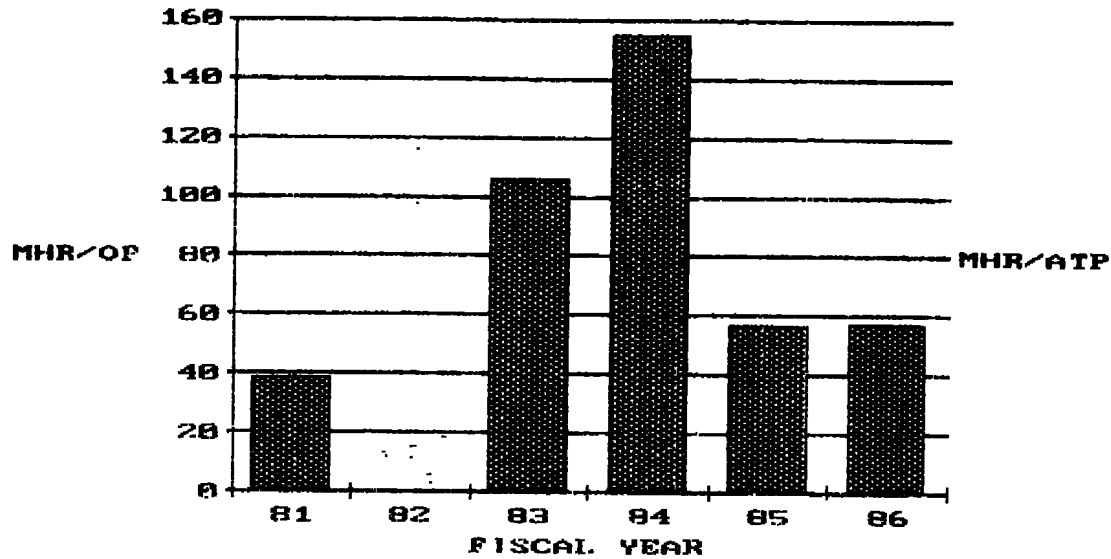
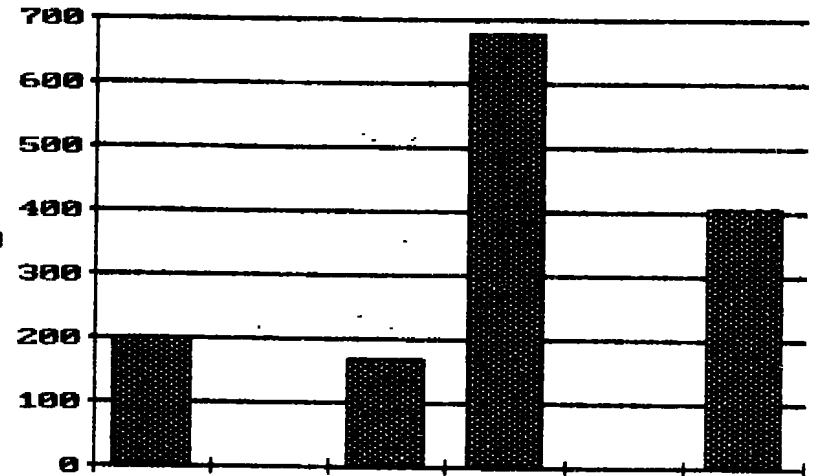
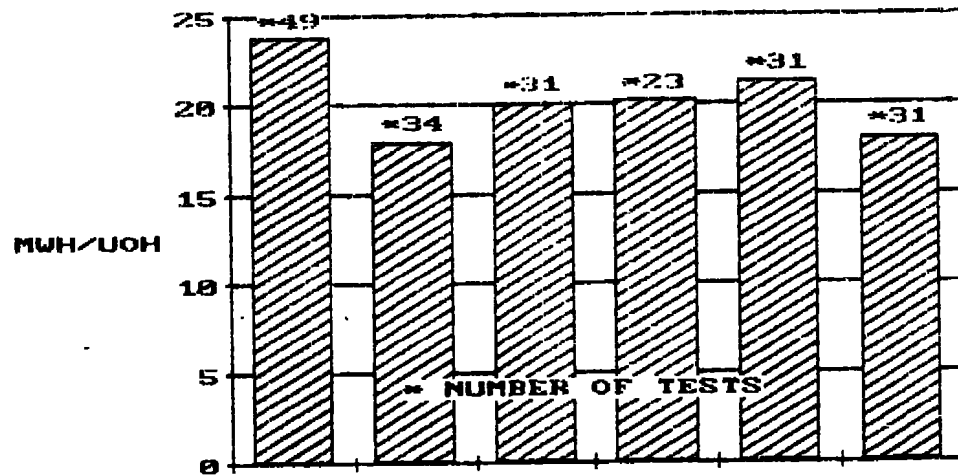
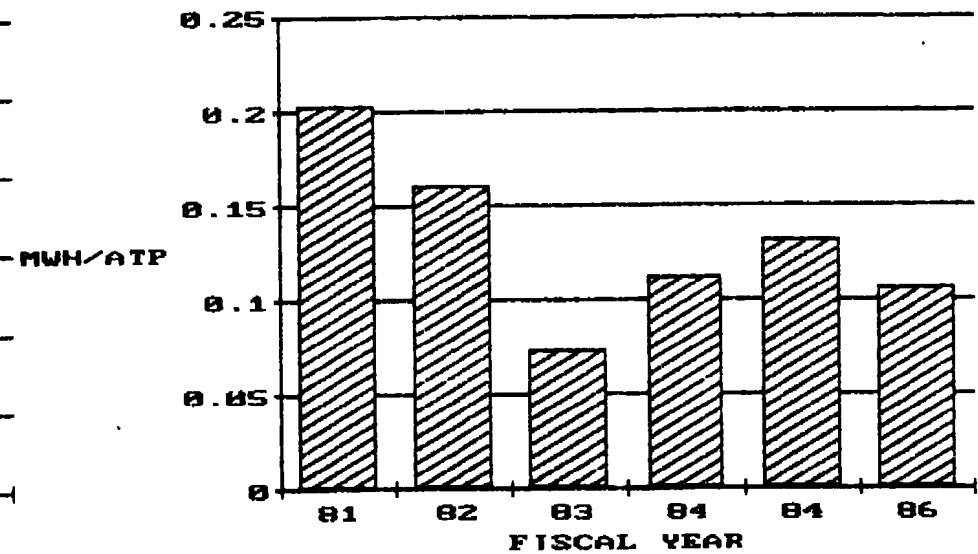
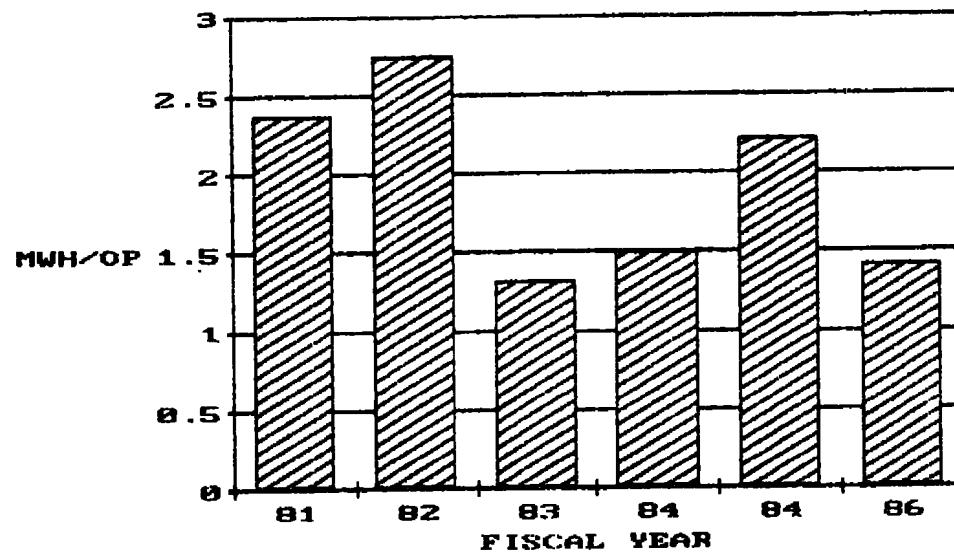
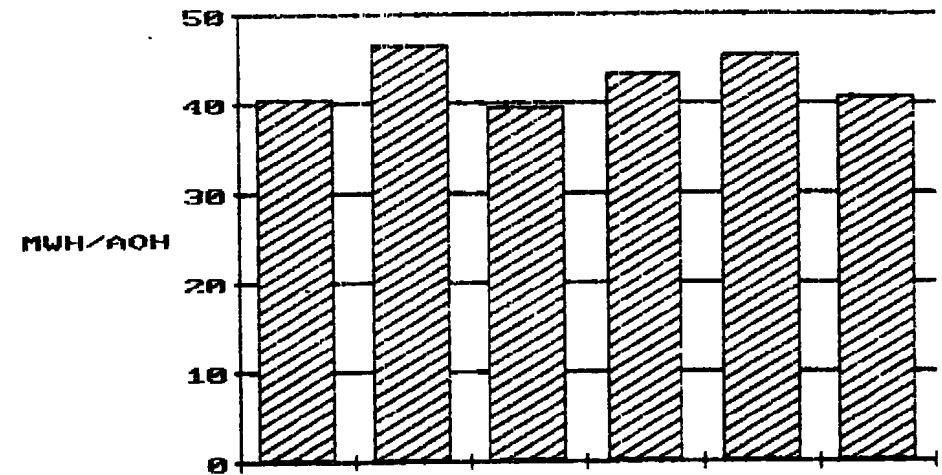


Figure 17. Manhour Statistics for Tunnel 16S (All Tests)

## ALL TESTS



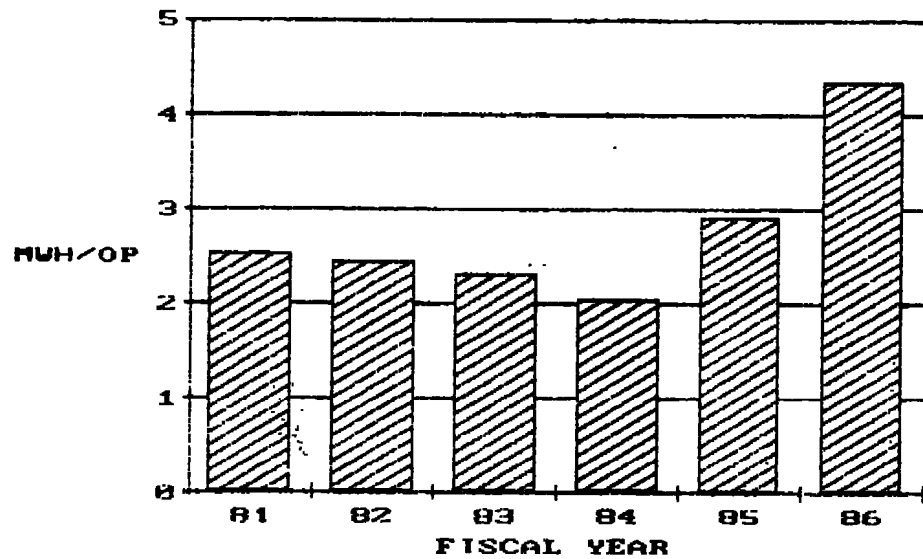
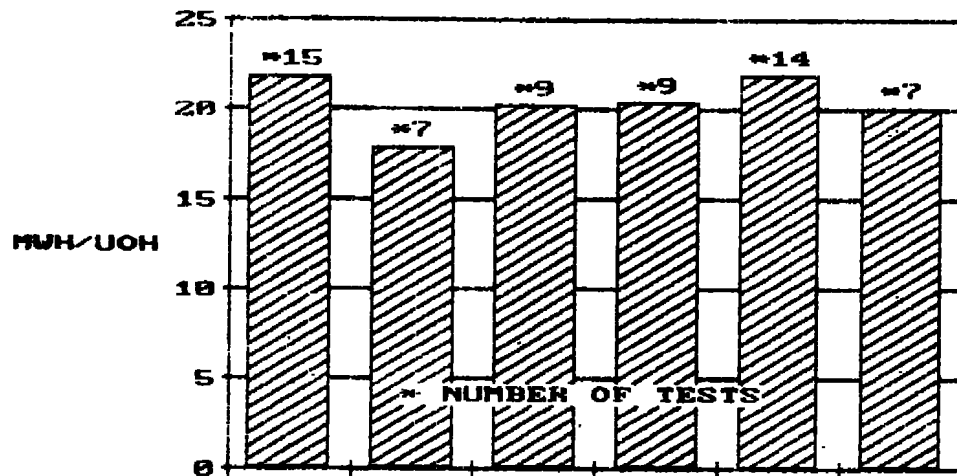
## ALL TESTS



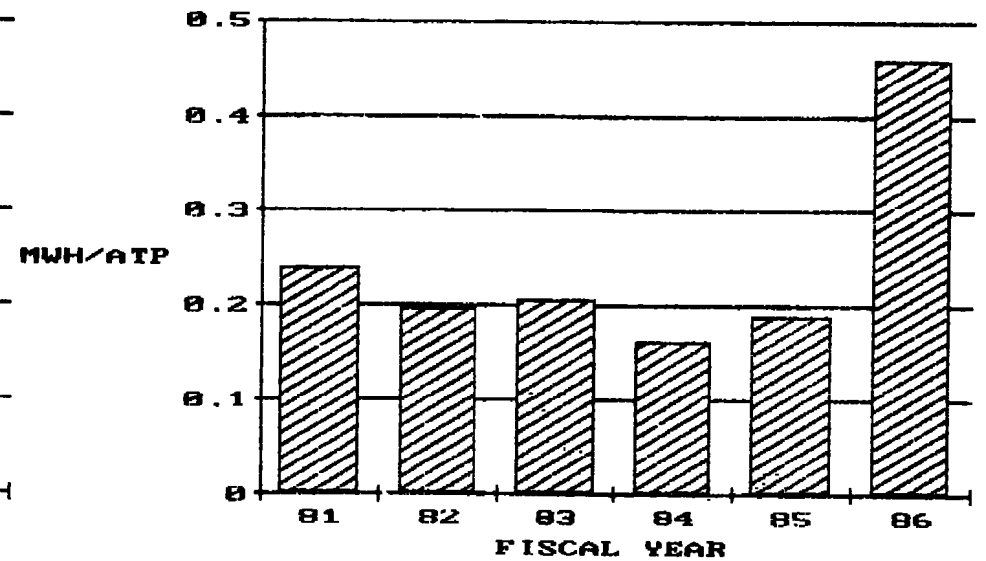
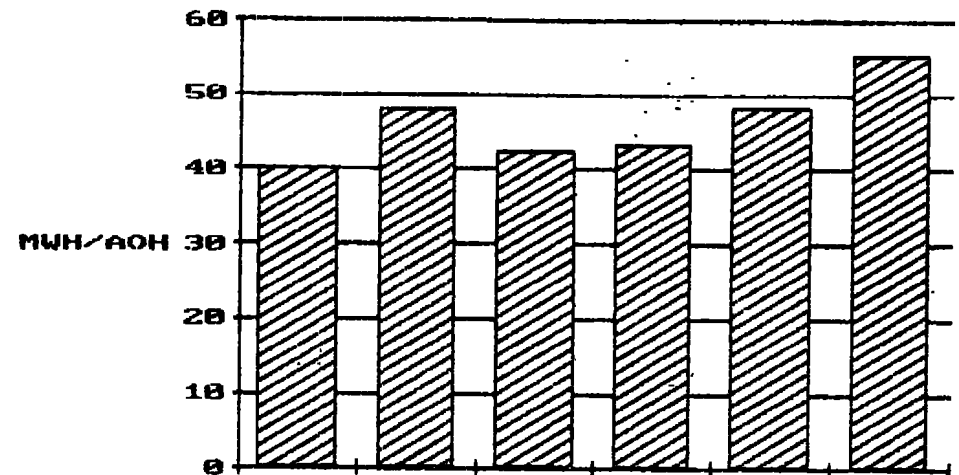
a. All Tests

Figure 18. Electricity Statistics for Tunnel 4T

# **BALC**



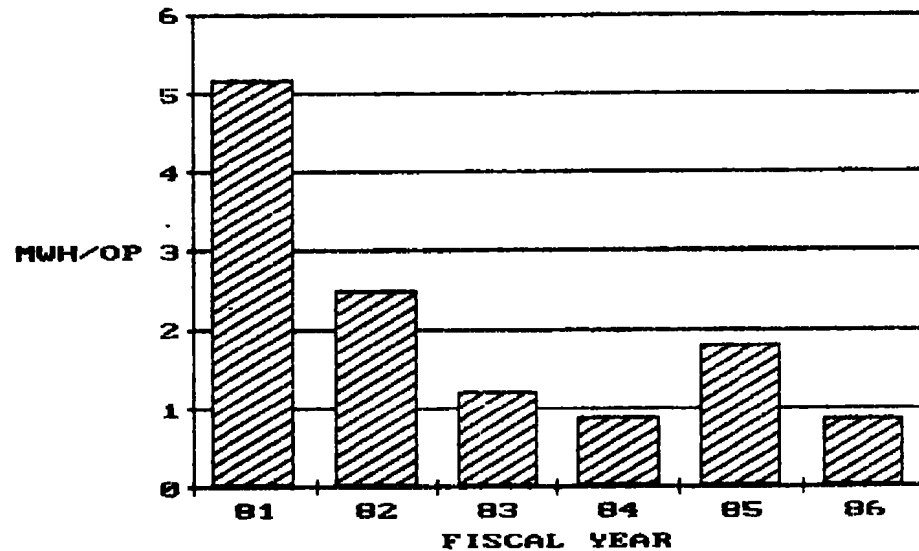
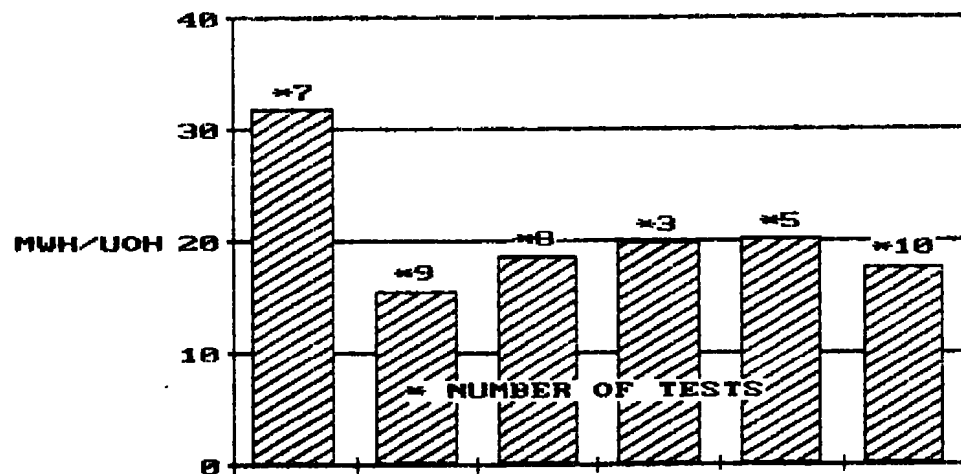
# **BALC**



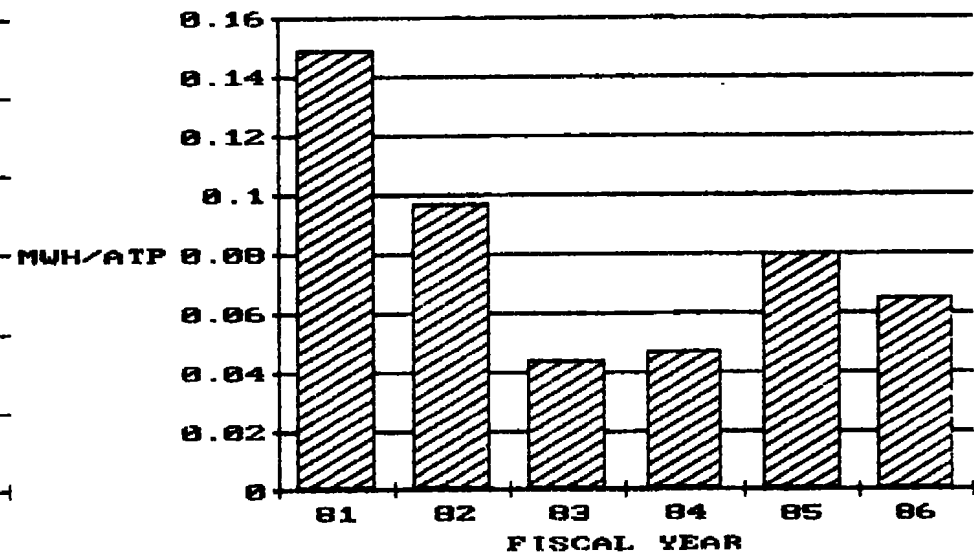
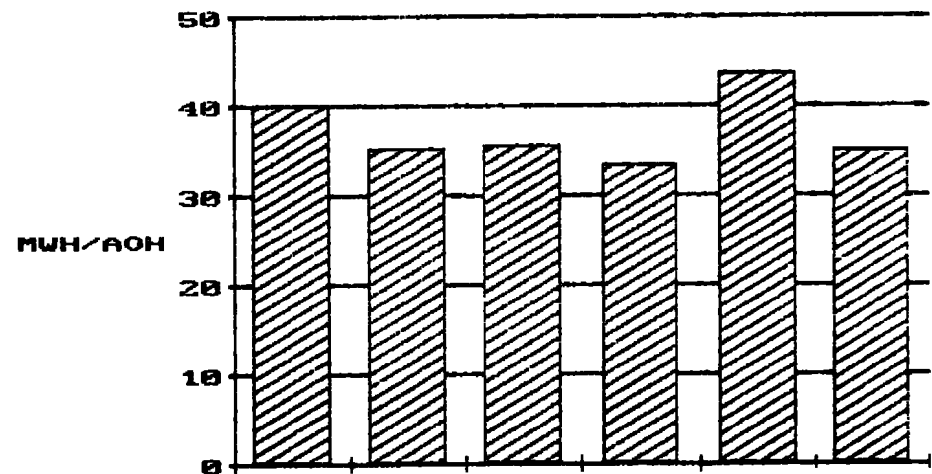
b. BALC

Figure 18. Continued

# CTSC



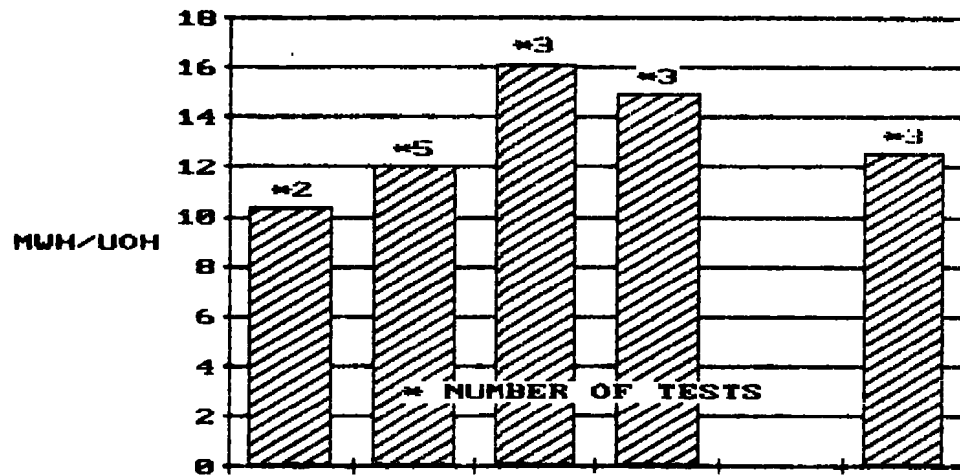
# CTSC



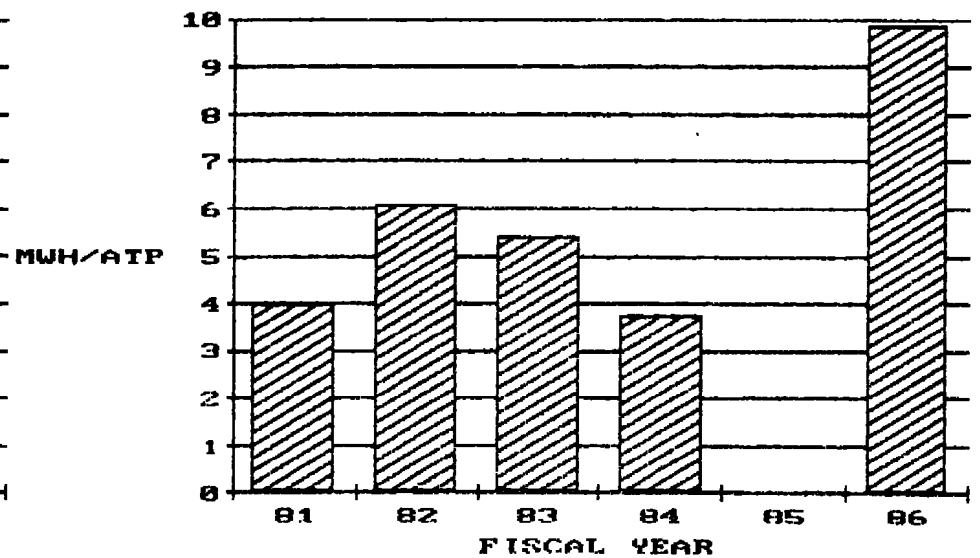
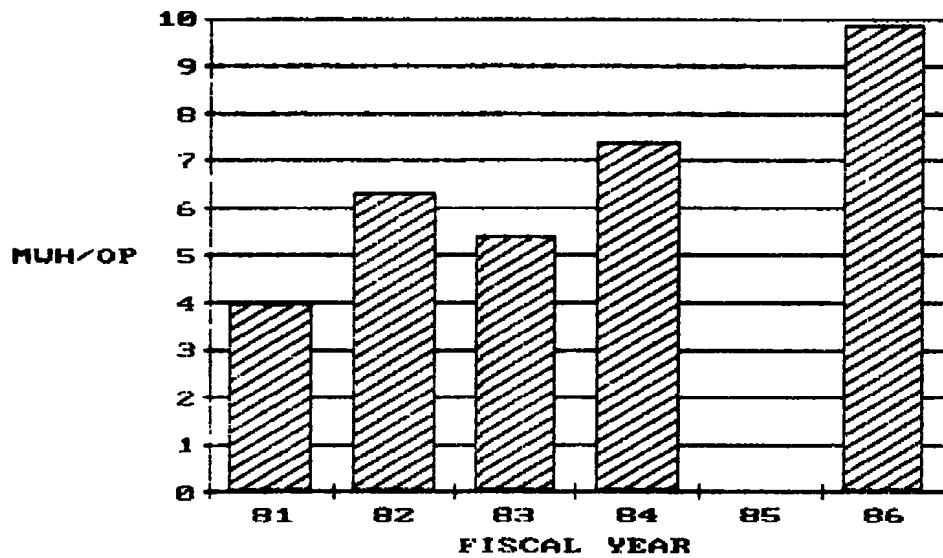
c. CTSC

Figure 18. Continued

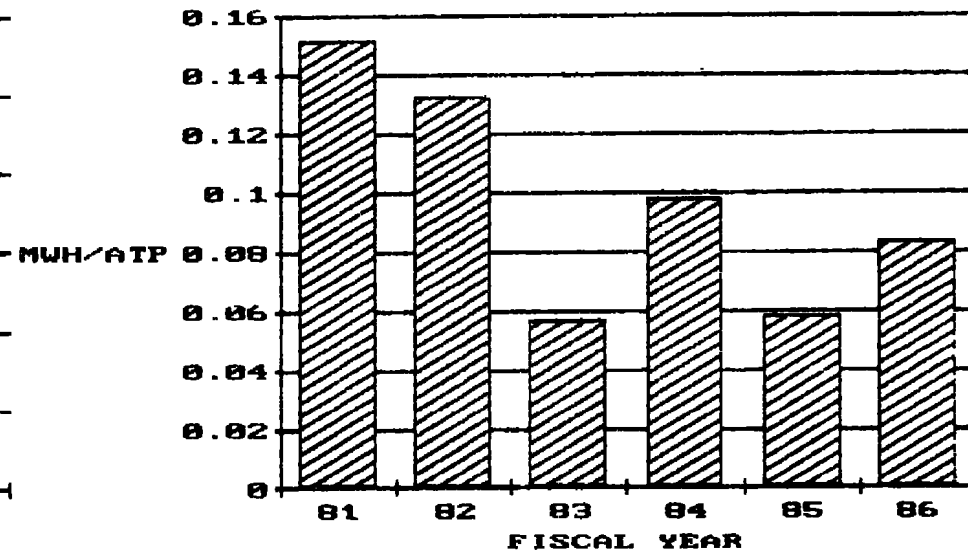
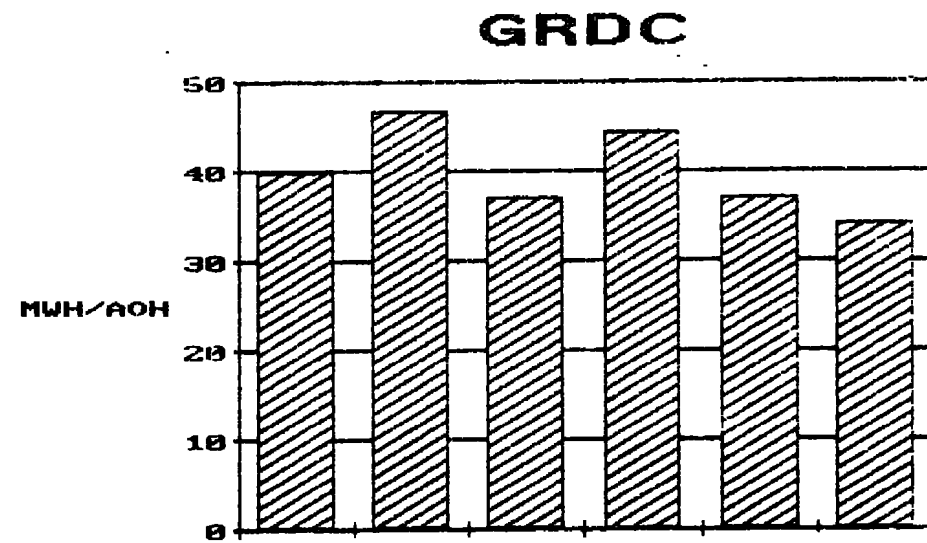
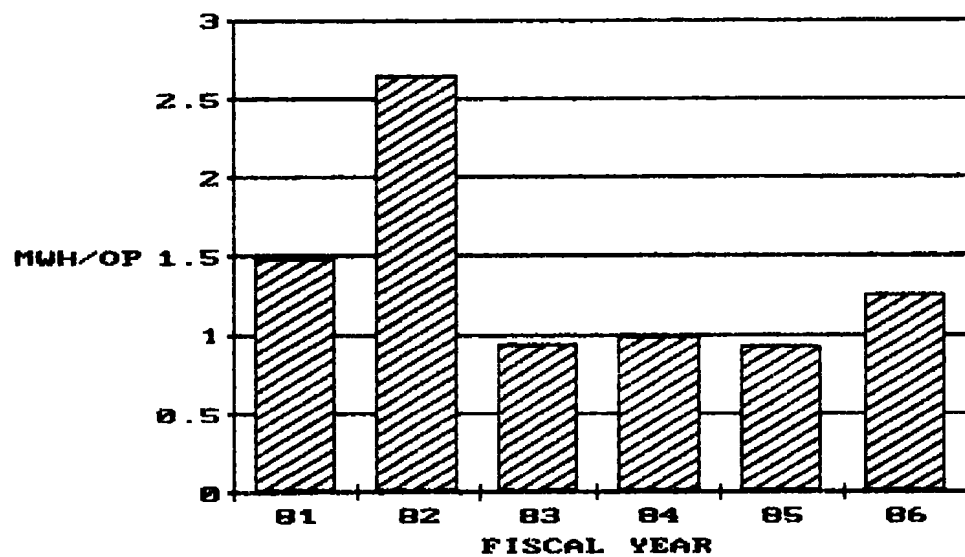
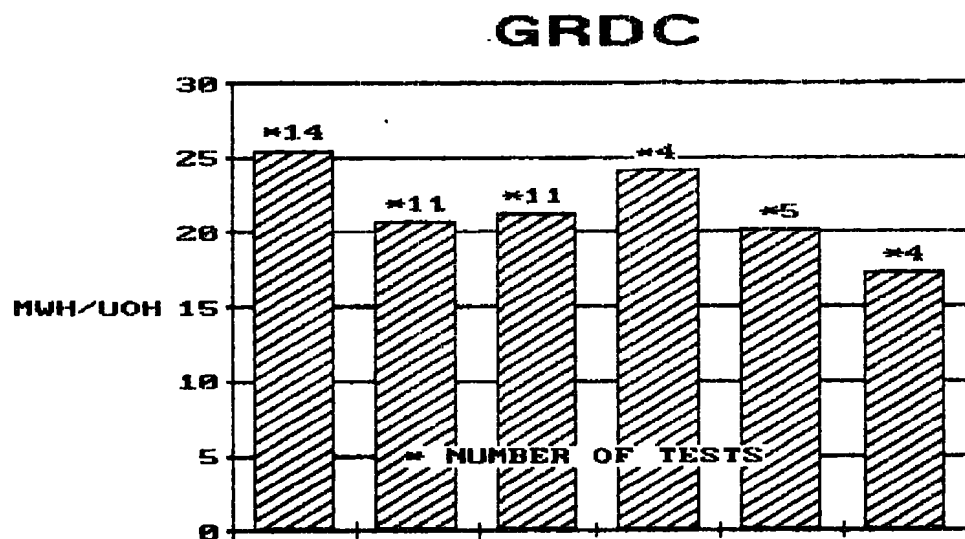
# DYDC



# DYDC



d. DYDC  
Figure 18. Continued

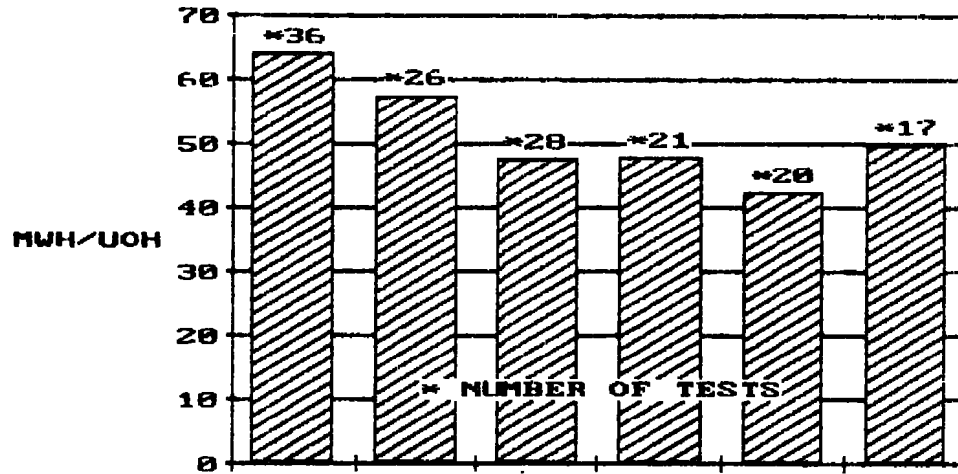


e. GRDC

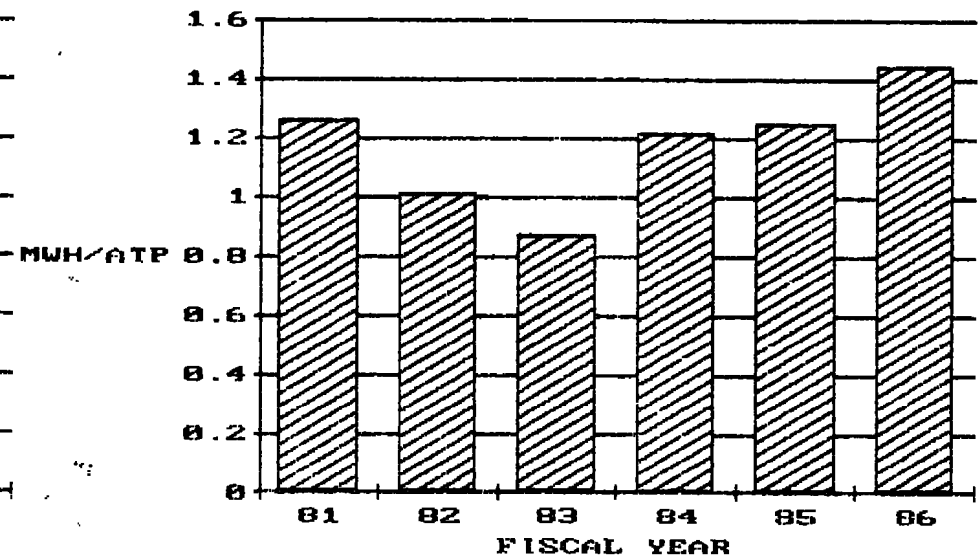
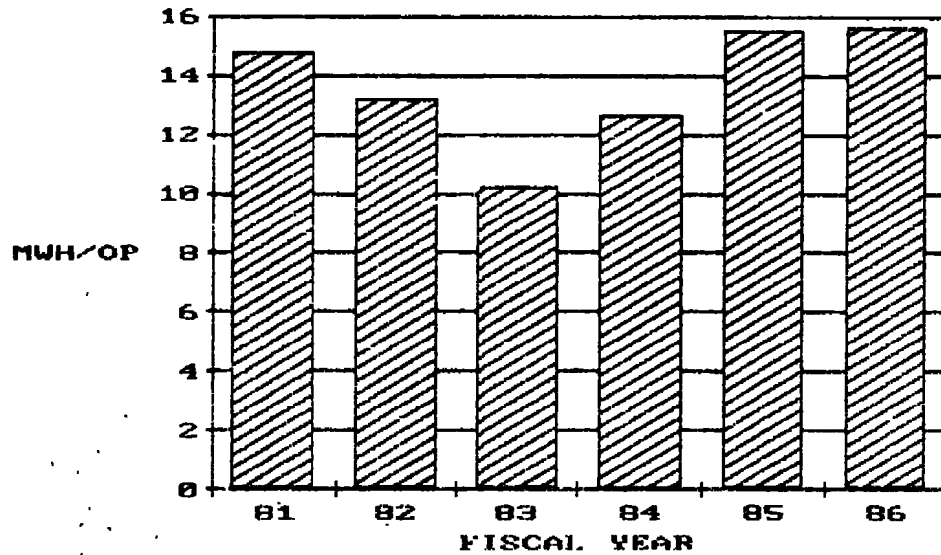
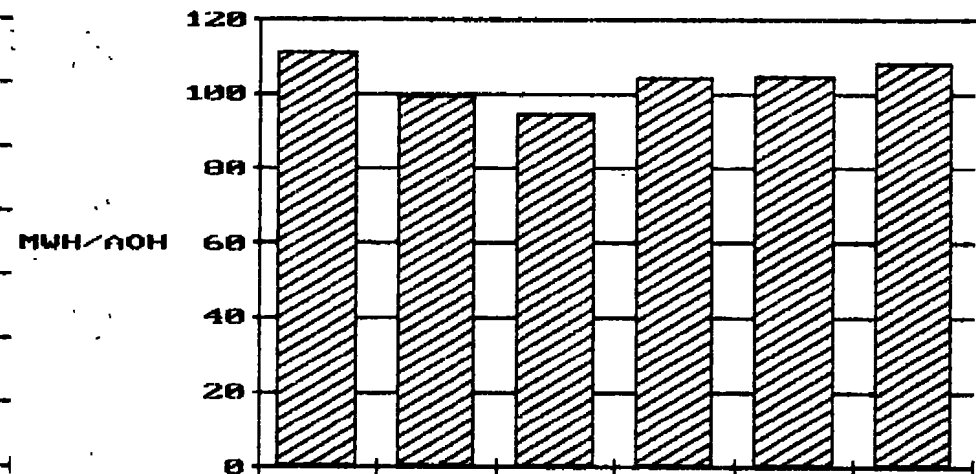
Figure 18. Concluded



## ALL TESTS



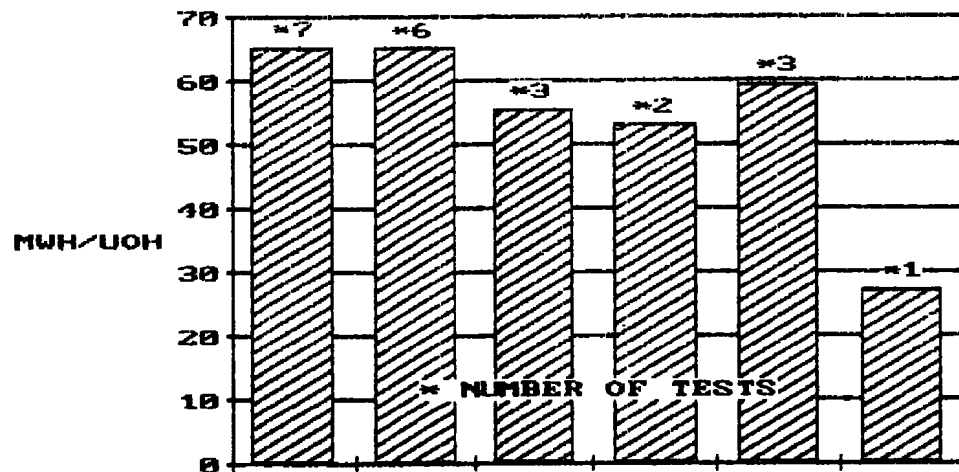
## ALL TESTS



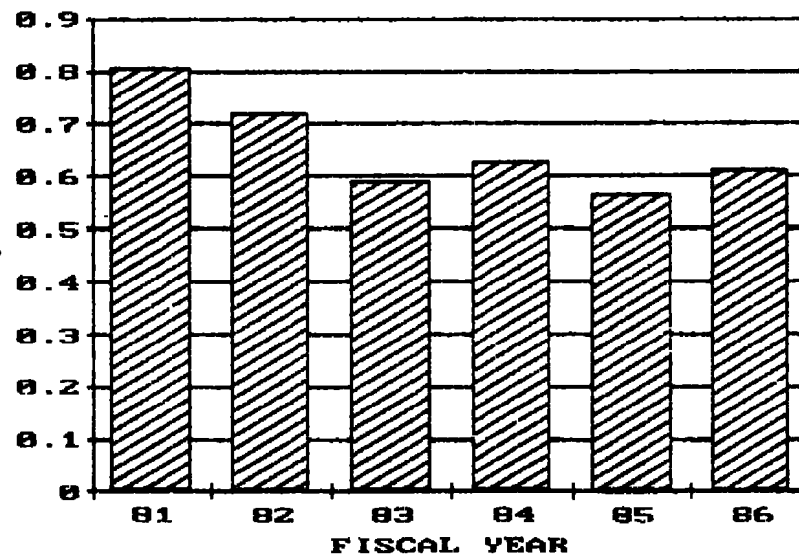
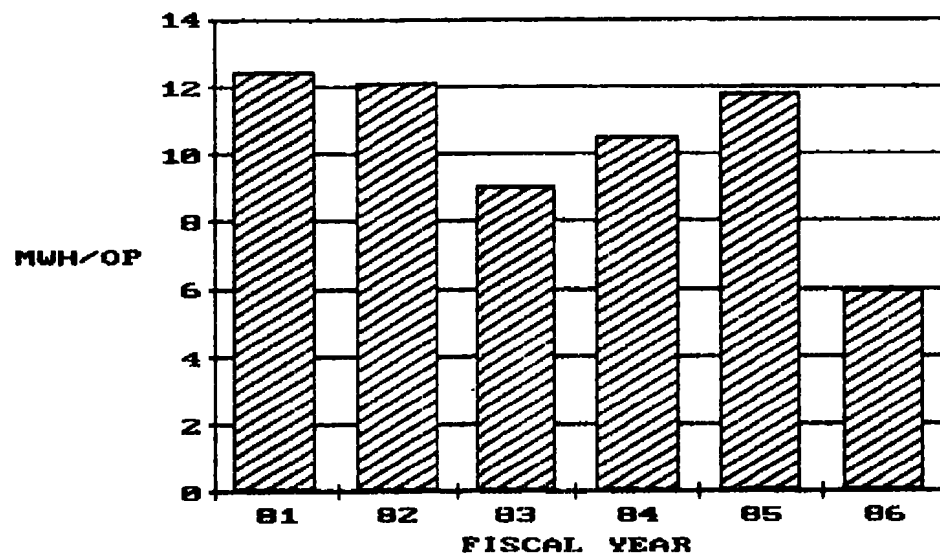
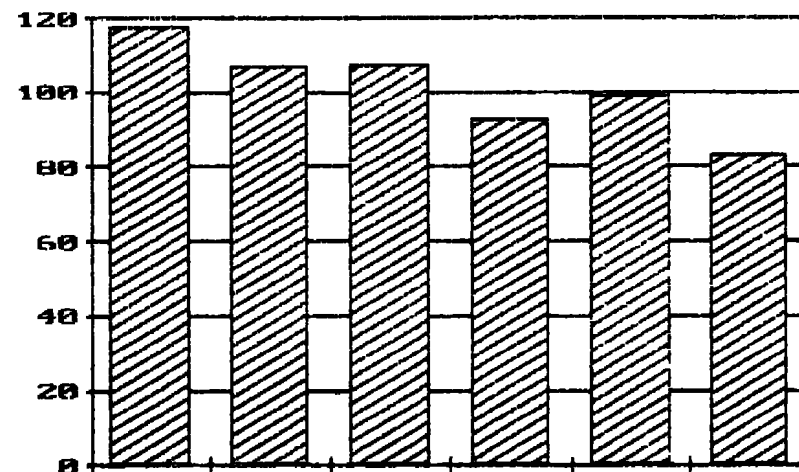
a. All Tests

Figure 19. Electricity Statistics for Tunnel 16T

# BALT

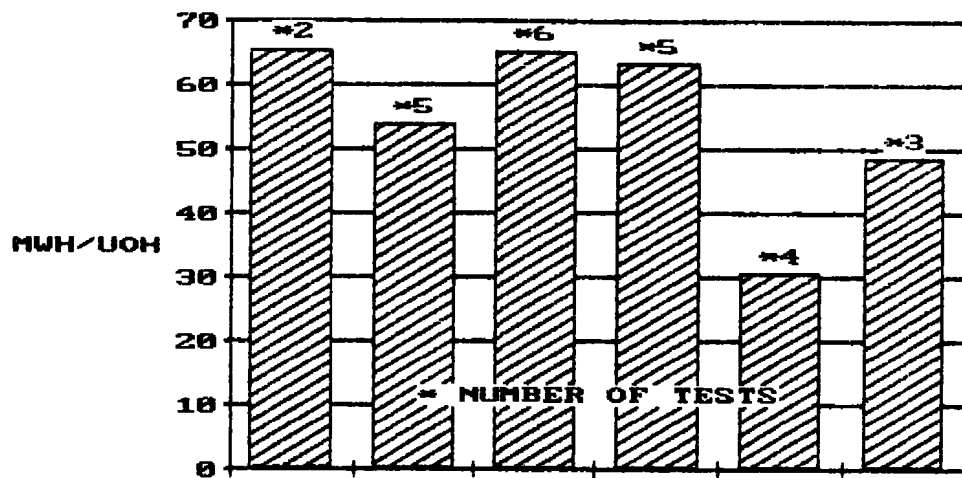


# BALT



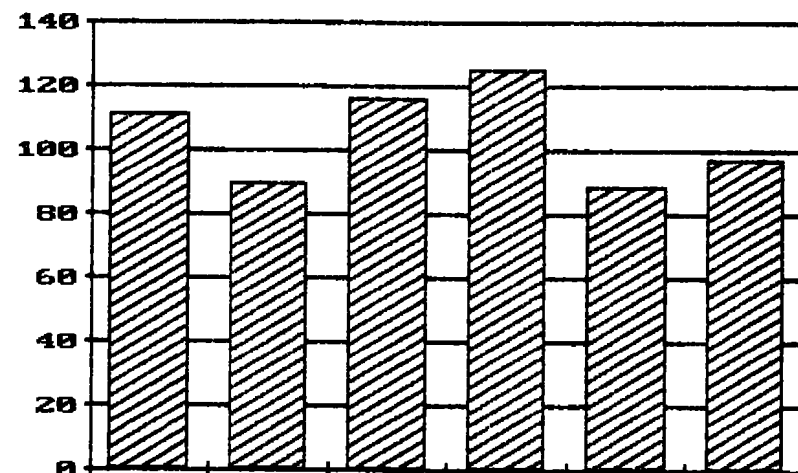
b. BALT  
Figure 19. Continued

# BAPT

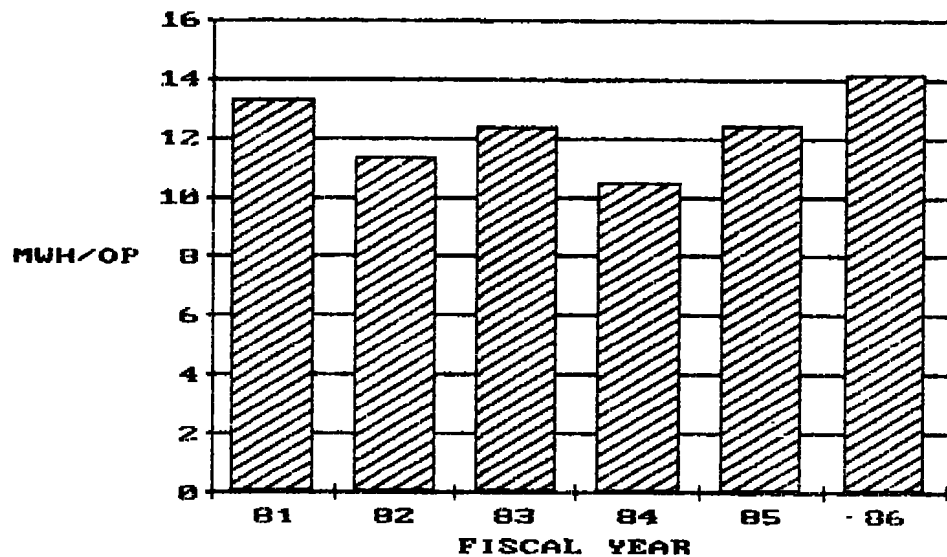


MWH/UOH

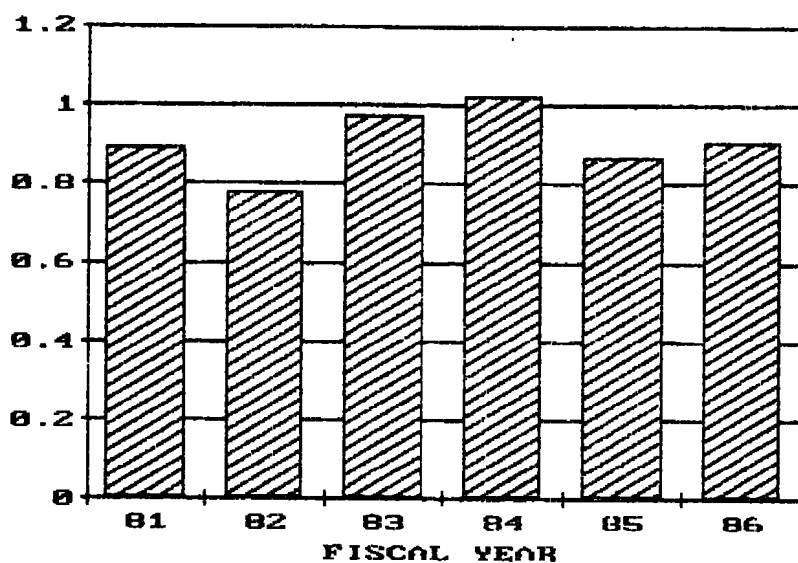
# BAPT



MWH/AOH



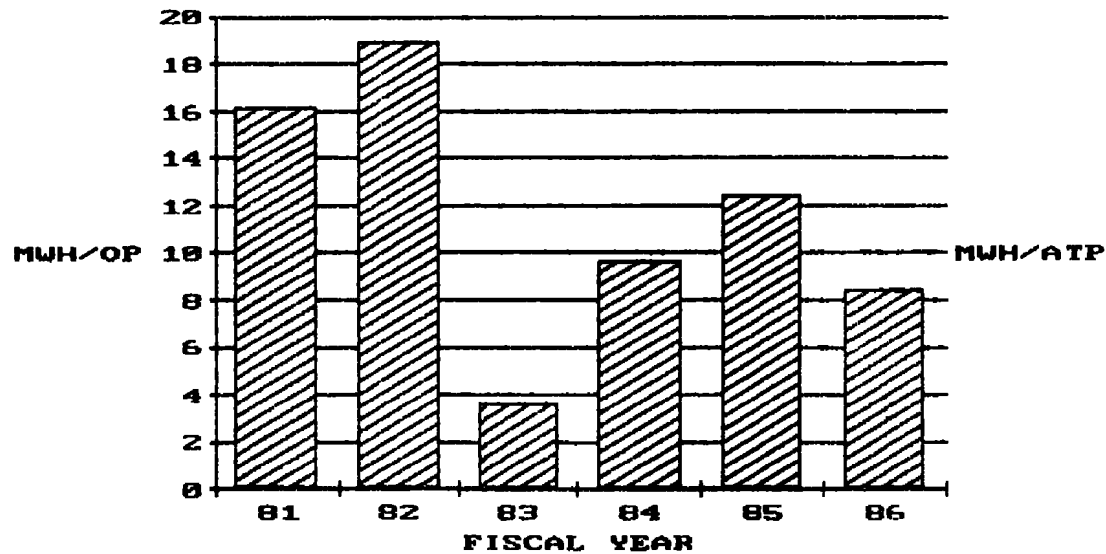
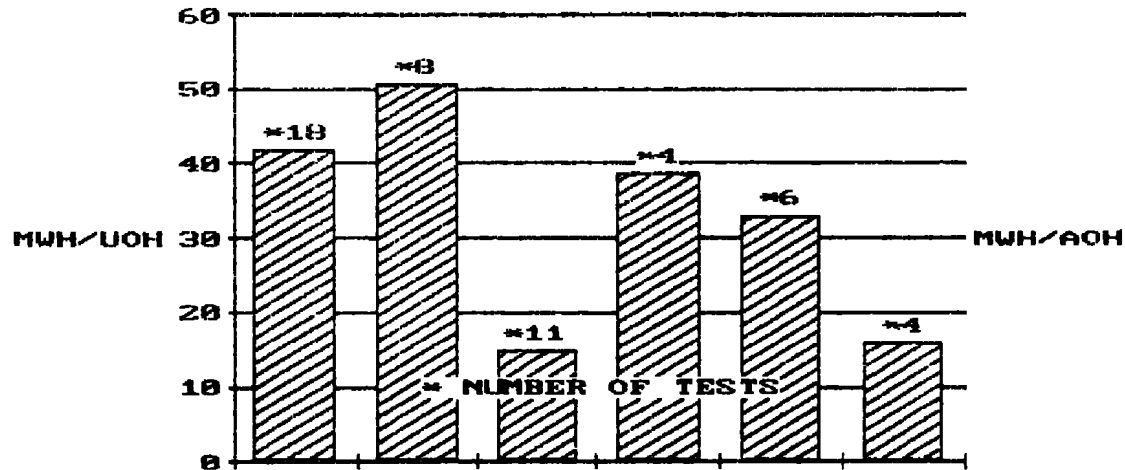
MWH/OP



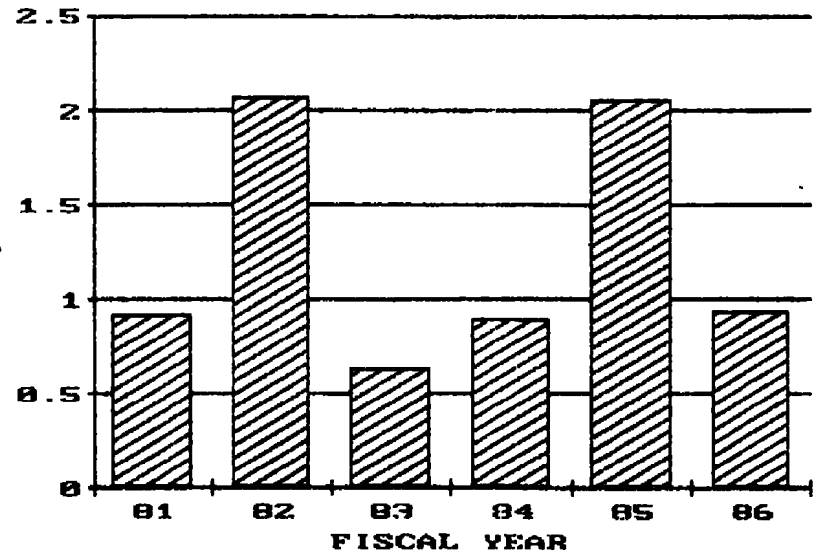
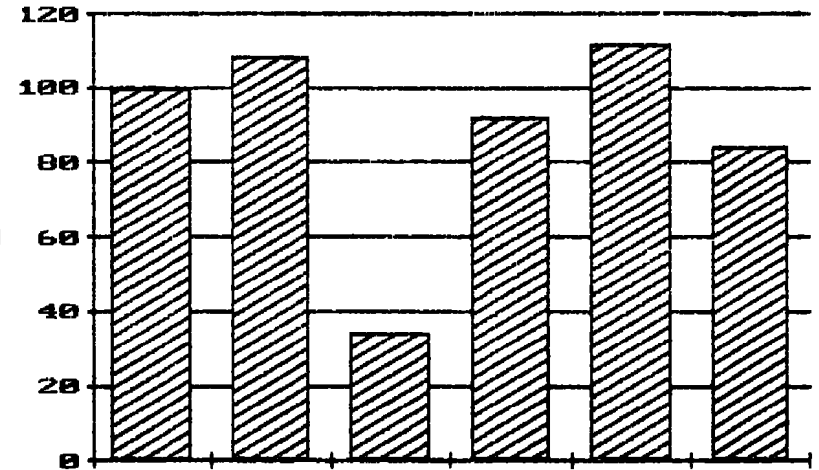
MWH/ATP

c. BAPT  
Figure 19. Continued

# MIST

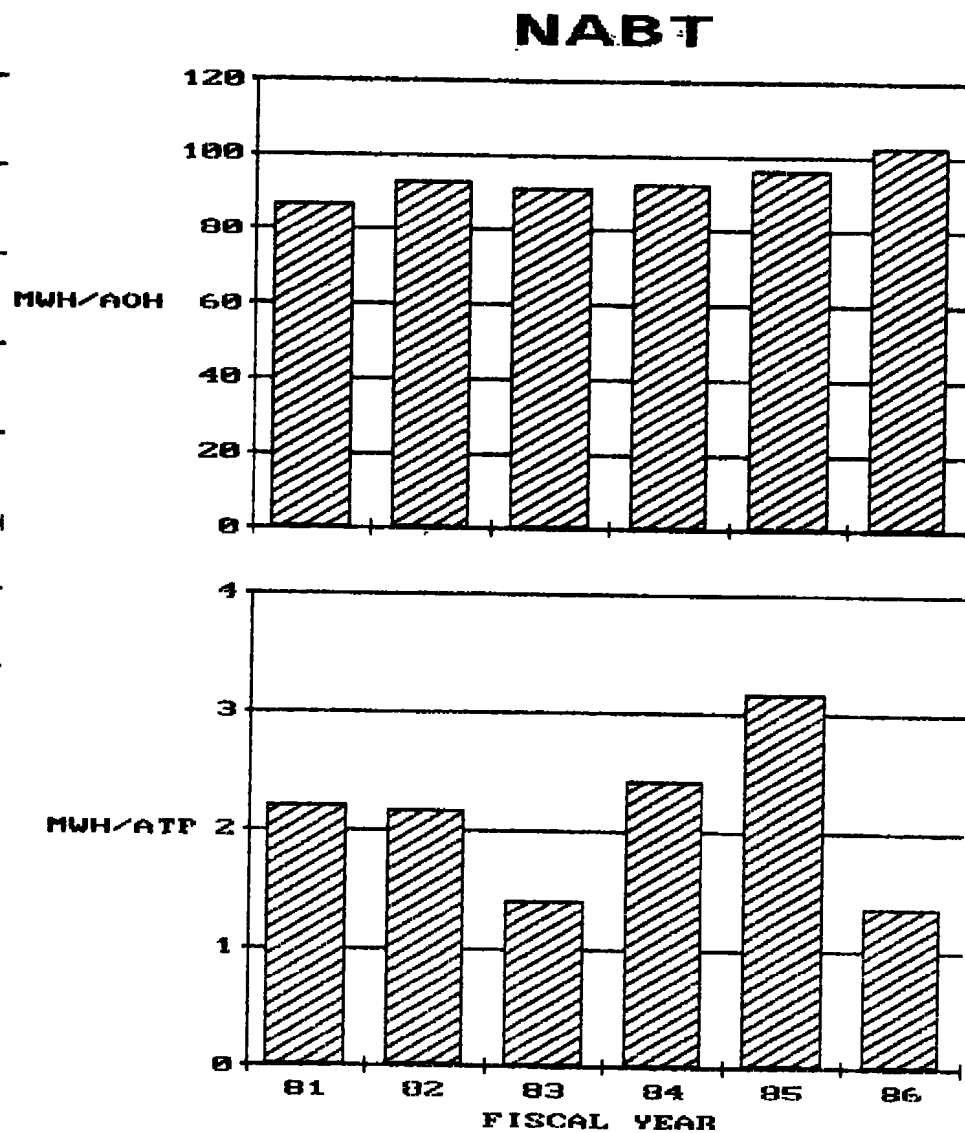
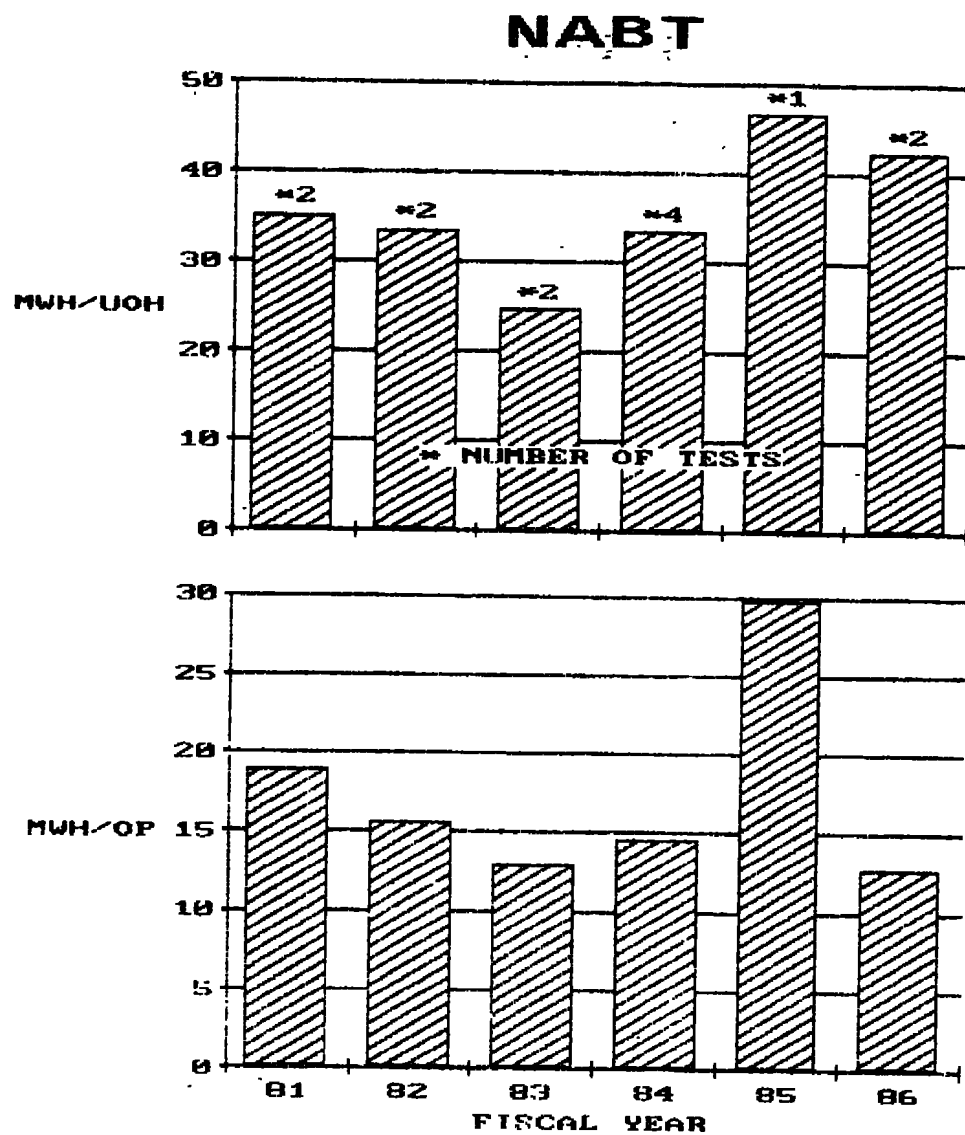


# MIST

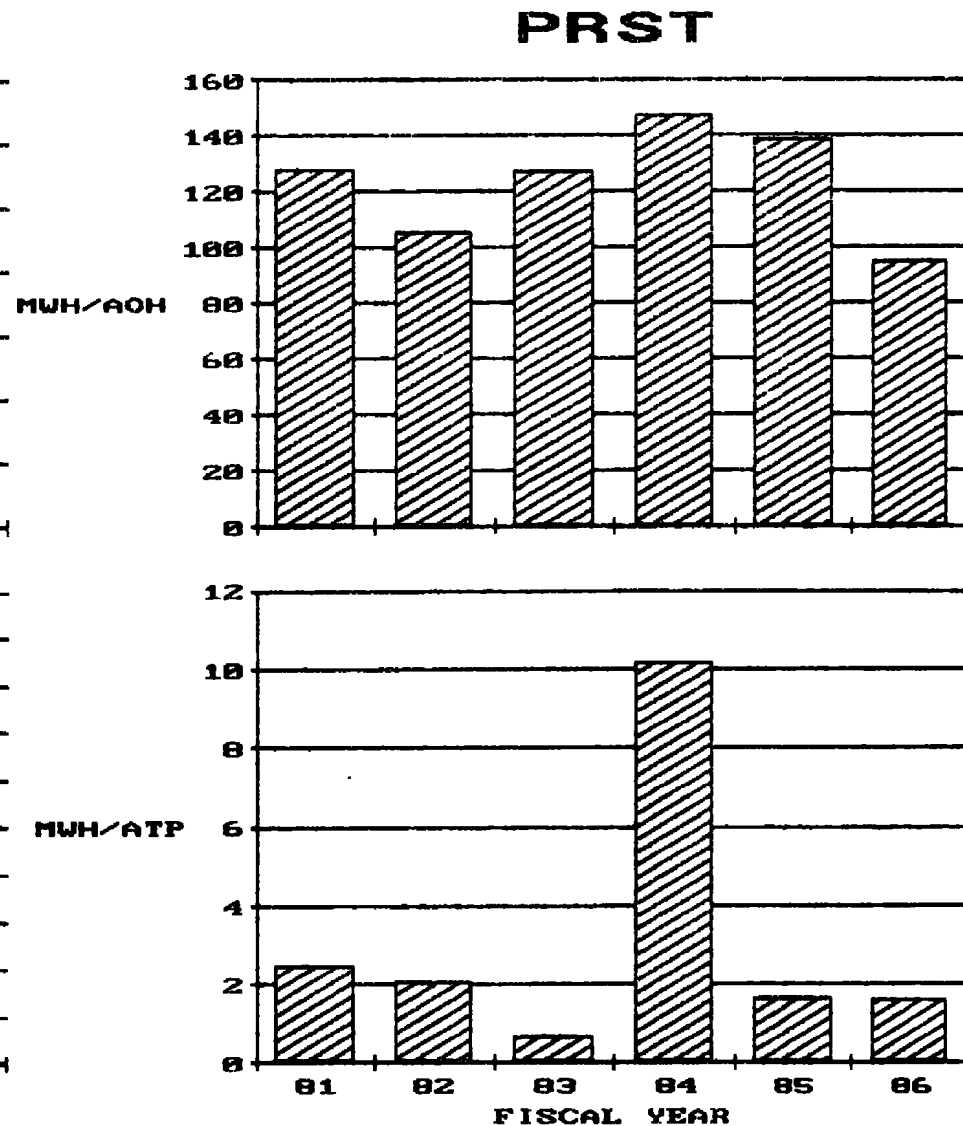
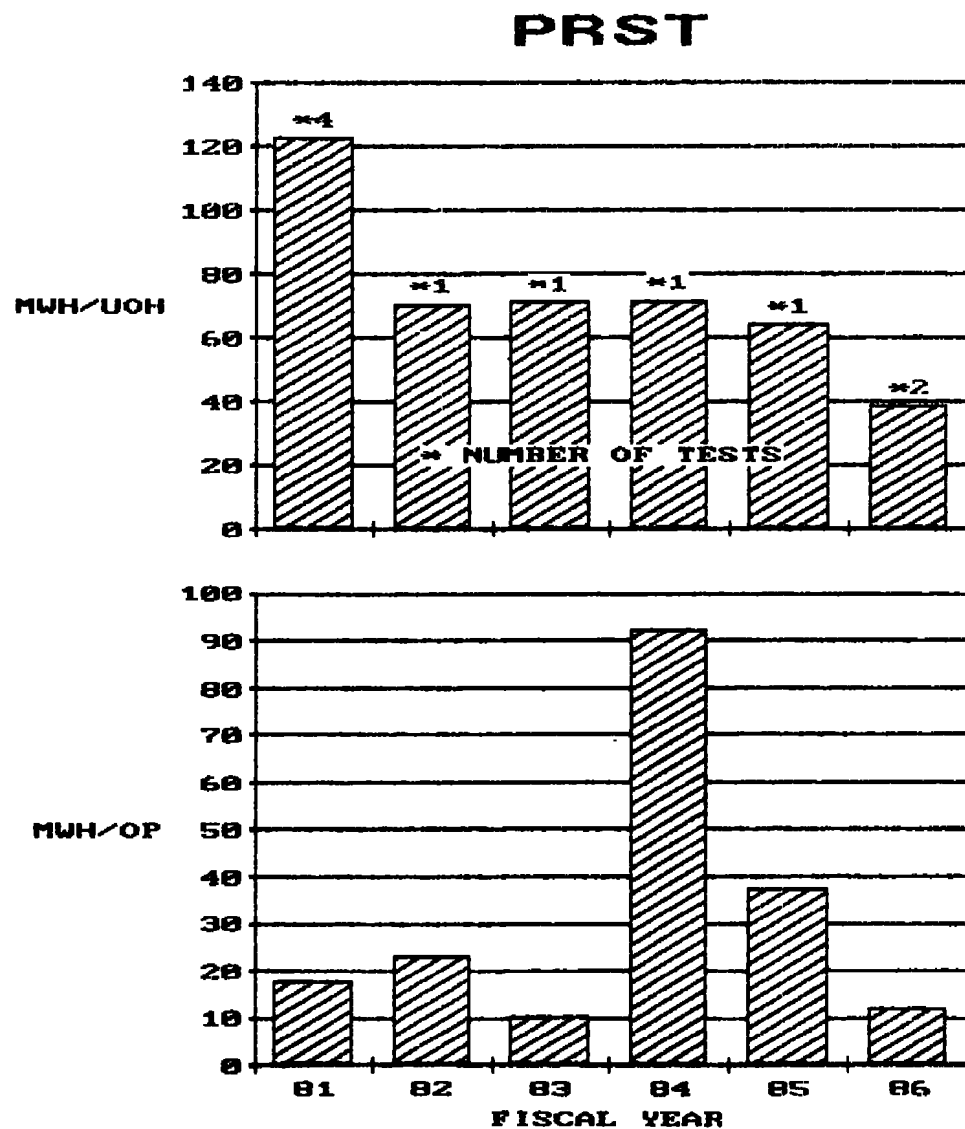


d. MIST

Figure 19. Continued



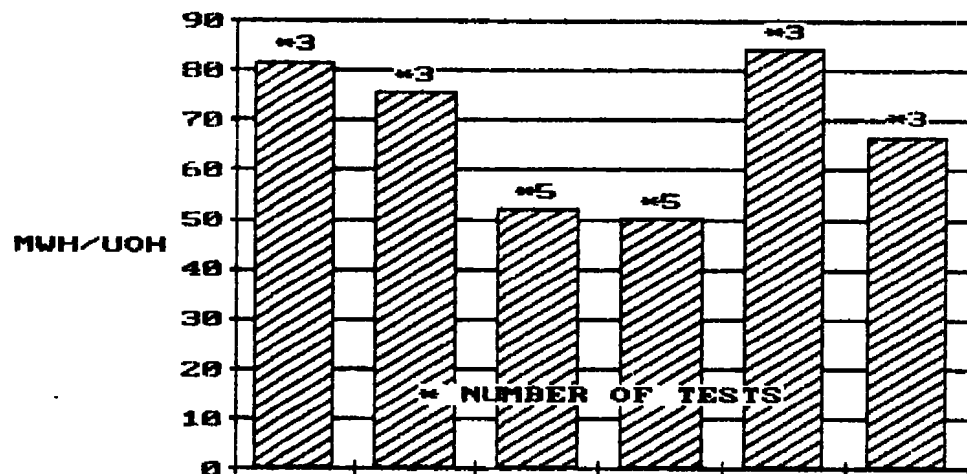
e. NABT  
Figure 19. Continued



f. PRST

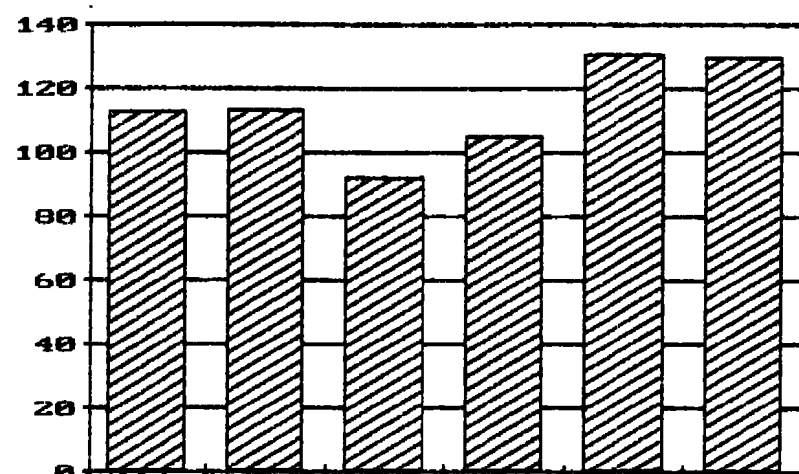
Figure 19. Continued

# SIPT



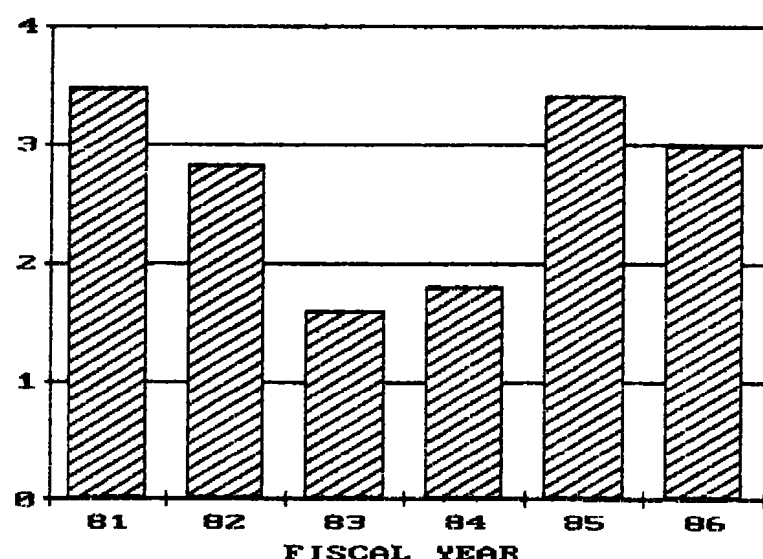
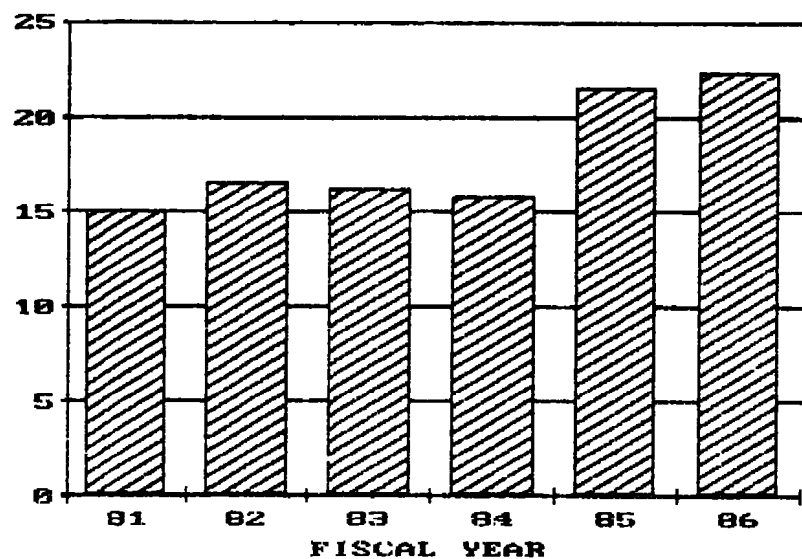
MWH/AOH

# SIPT



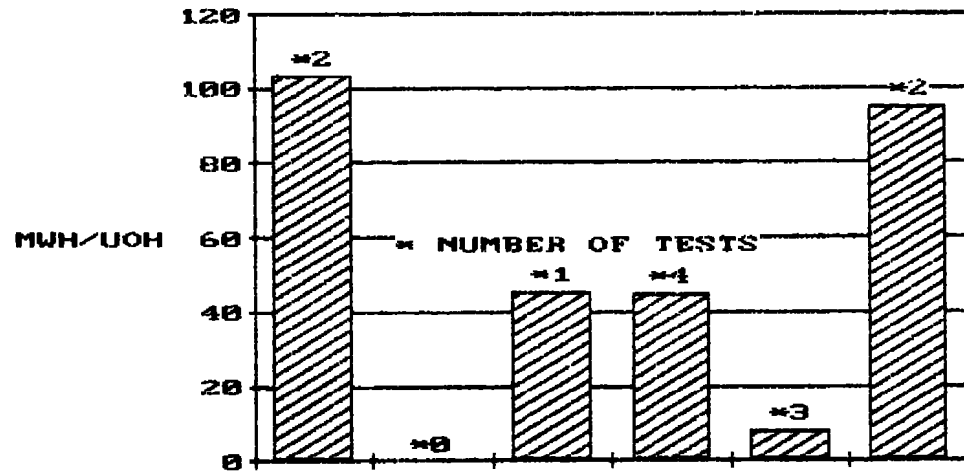
MWH/ATP

MWH/OP



g. SIPT  
Figure 19. Concluded

## ALL TESTS



## ALL TESTS

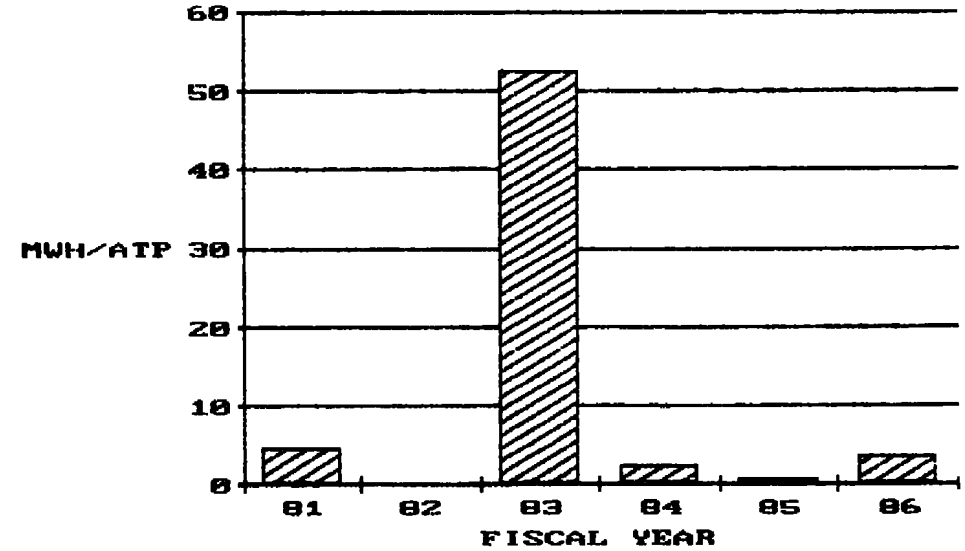
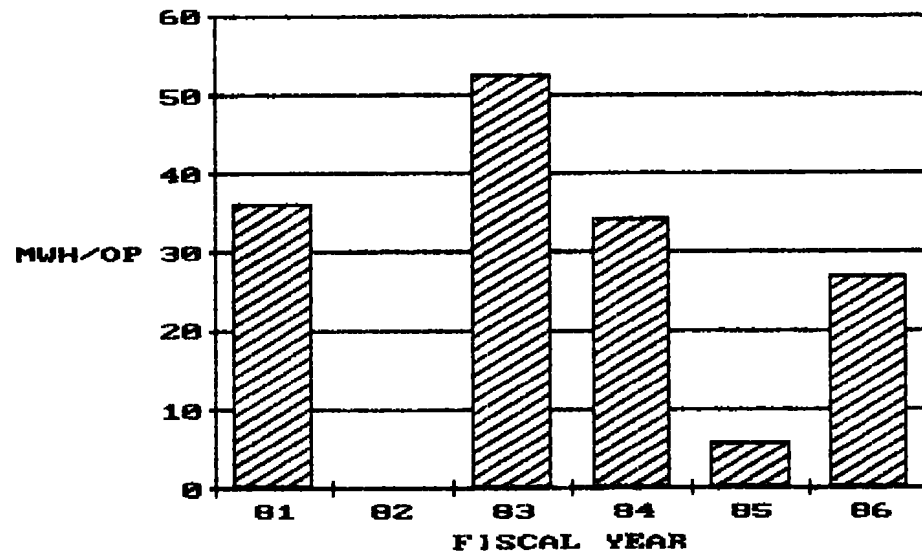


Figure 20. Electricity Statistics for Tunnel 16S (All Tests)



# TUNNEL 16T WORK PHASE DATABASE

OUTPUT CRITERIA						03-Nov-86																						
AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	
A.F.	CAL	TEST	TYPE	DATE	FY	ENTRS	OSH	UDH	ADH	I/R	MWH	OP	ATP	PHASE	CALSPAN	SUPPORT	OVER	TOTAL	LABOR	PURCH.	TRAVEL	PSI	ELEC	ANDHL	DEC 10	OTHER	TOTAL*	
Regression Output:						ITEMS FOUND:																						
Constant						68																						
Std Err of Y Est						1697.3																						
R Squared						0.8790																						
No. of Observations						68																						
Degrees of Freedom						66																						
X Coefficient(s)						42.606																						
Std Err of Coef.						1.9457																						
OUTPUT LISTING						AVERAGE																						
						68	223.5	113.8	53.7	93.0	5,515	414	4,910	5	4,317	625	1,261	6,202	116,204	363	C	1,527	357,836	7,870	15,146	32,993	501,932	
						LINEAR CURVE FIT																						
A.F.	CAL	TEST	TYPE	DATE	FY	ENTRS	OSH	UDH	ADH	I/R	MWH	OP	ATP	PHASE	CALSPAN	SUPPORT	OVER	TOTAL	LABOR	PURCH.	TRAVEL	PSI	ELEC	ANDHL	DEC 10	OTHER	TOTAL*	
C391	-1B	627	NIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	5	12,118	13	1,726	13,857	253,855	1,359	0	4,037	218,422	2,130	39,412	55,036	574,251	14,832
C392	-3B	613	NIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	5	5,816	25	520	6,361	109,586	0	0	106	467,914	4,918	14,231	14,151	610,906	5,322
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	5	6,333	9	575	6,917	117,709	0	0	235	275,317	11,876	14,451	9,054	429,642	6,651
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	5	4,058	29	169	4,256	70,454	0	0	128	233,955	6,995	18,841	4,764	335,137	3,860
C409	-2F	664	BP/M	1.2	84	1	672.7	224.7	60.4	372	5,257	407	4,271	5	7,877	2,727	3,670	14,274	270,145	1,594	0	2,514	306,013	6,615	44,077	63,855	694,813	10,929
C545	-1K	633	BALT	10.4	82	1	46.0	35.3	25.4	0.0	2,591	168	2,813	5	1,791	190	183	2,164	37,261	0	0	29	191,704	975	2,788	6,027	238,784	2,859
C604	-0B	624	SIFT	5.5	82	1	96.2	52.4	33.8	41.0	2,577	245	2,573	5	2,640	771	394	3,805	62,306	100	0	170	205,758	5,274	10,063	7,185	290,856	3,566
C606	-0D	655	SIFT	5.1	83	1	72.2	53.1	33.1	12.0	740	240	2,520	5	2,541	864	609	4,014	68,271	0	0	0	206,754	0	20,603	16,905	312,533	3,616
C607	-0E	666	NIST	2.2	84	1	402.5	211.3	91.0	161.5	6,898	944	10,528	5	9,321	0	2,061	11,382	232,172	0	0	2	519,745	11,950	29,031	61,101	854,001	10,358
C613	-0I	622	NIST	4.4	82	1	103.3	71.3	12.6	25.0	1,196	151	1,748	5	3,527	44	139	3,710	60,378	36	0	168	87,489	512	5,975	1,900	156,458	4,393
C660	-0L	618	NIST	5.4	82	1	24.0	3.9	2.2	20.1	92	34	190	5	330	0	21	351	5,437	0	0	32	8,019	434	1,270	198	15,390	1,521
C664	-1H	630	NABT	9.2	82	1	80.7	15.3	10.7	64.2	1,197	33	626	5	971	0	79	1,050	17,616	0	0	256	89,161	1,098	3,621	2,726	114,478	2,007
C691	-0R	620	B/M	4.2	82	1	15.6	9.2	6.0	6.4	744	115	1,336	5	912	0	41	953	18,352	554	0	190	54,761	626	20,364	2,385	97,232	1,747
C694	-0S	617	BP/M	4.3	82	1	8.5	7.2	7.1	0.0	749	43	606	5	418	3	24	445	7,468	0	0	13	57,892	1,837	156	1,063	68,429	1,662
C708	-0U	621	B/P	5.2	82	1	156.2	69.4	37.6	43.5	3,942	213	2,404	5	3,689	11	211	3,911	64,211	0	0	93	327,576	4,841	26,357	6,271	429,349	4,312
C719	-0W	654	BAPT	8.1	83	1	264.8	95.9	49.3	135.0	5,800	583	8,944	5	5,422	2,468	1,017	8,907	153,504	37	0	2,315	424,117	3,890	0	35,691	619,554	5,441
C720	-0X	653	FRST	10.1	83	1	165.5	97.4	54.8	55.0	6,929	648	9,942	5	5,269	2,018	1,468	8,755	155,609	988	0	5,039	508,176	0	23,507	38,043	731,362	5,555
C741	-1C	626	BAPT	8.1	82	1	129.2	84.4	46.5	33.3	5,833	244	2,955	5	4,848	0	239	5,087	85,102	0	0	55	444,716	5,976	17,787	12,850	569,466	4,951
C744	-1E	629	SIFT	8.2	82	1	238.7	109.1	73.4	106.4	9,294	372	1,921	5	6,603	477	625	7,705	129,734	32	0	3,152	768,181	9,430	15,628	20,333	869,690	6,004
C750	-1F	635	NIST	11.1	82	1	60.0	34.8	1.0	1.2	127	25	400	5	1,005	0	17	1,022	17,750	0	0	0	8,539	252	1,241	950	26,732	2,838
C757	-1B	631	BALT	10.2	82	1	102.3	22.4	17.0	25.0	1,809	135	1,237	5	2,108	0	176	2,284	37,879	0	0	102	133,383	2,098	4,522	4,292	164,276	2,310

Figure 21. Project Resource Prediction Output Format

# TUNNEL 16T WORK PHASE ANALYSIS

ALL TESTS (WORK PHASE 5)

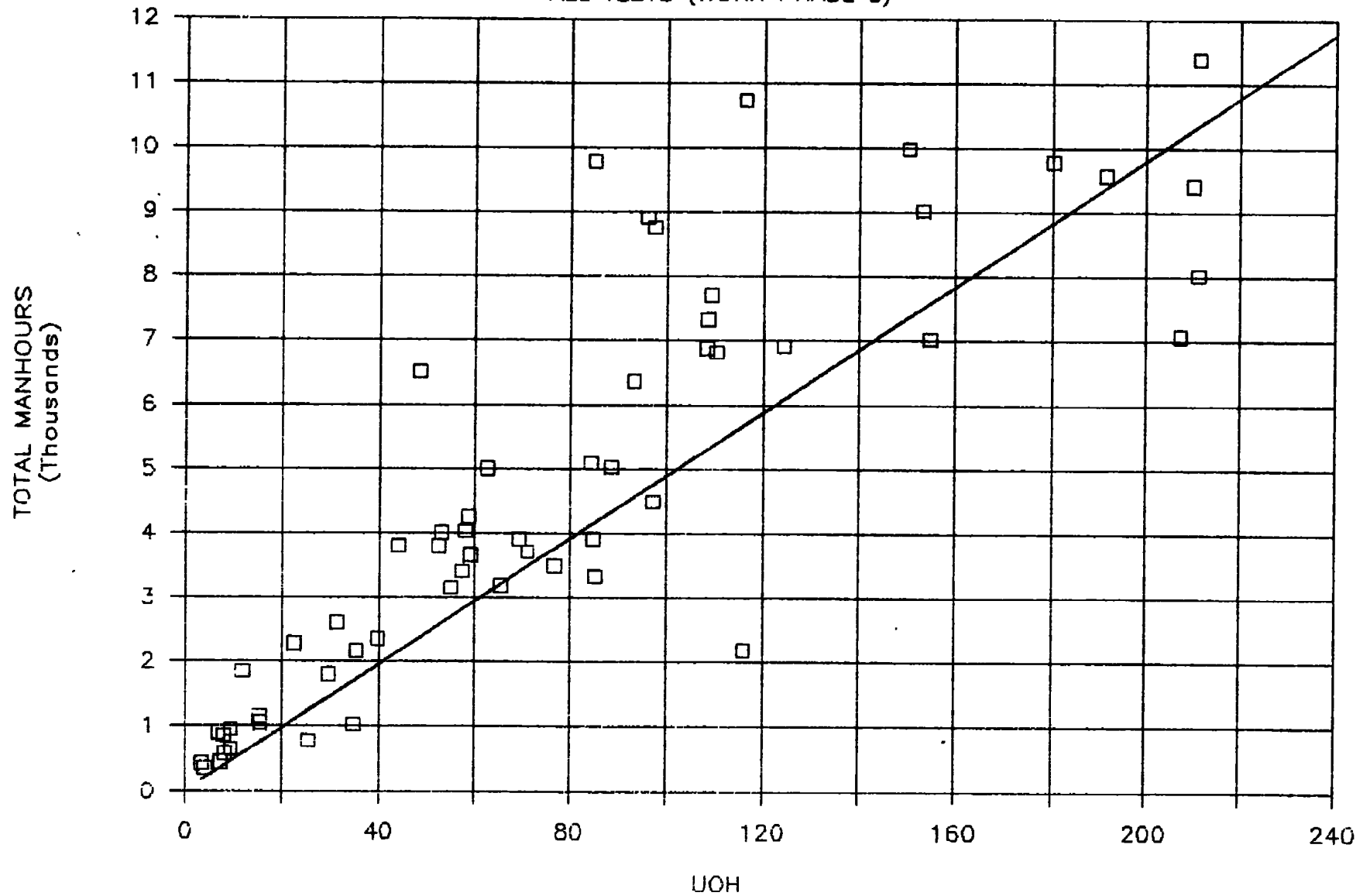


Figure 22. Comparison of Actual and Curve Fit Data

27-Aug-84

TUNNEL 161 WORK PHASE ANALYSIS

MANHOURS/TEST

COST/TEST (\$)

PHASE	FY	ENTRS	OSH	UDH	ADH	I/R	MWH	OP	ATP	PHASE	CALSPAN	SUPPORT	OVER	TOTAL	LABOR	PURCH.	TRAVEL	PSI	ELEC	AMDAHL	DEC 10	OTHER	TOTAL*
1	82	17	114.2	59.5	31.7	37.7	3,376	229	2,835	1	355	43	1	399	7,632	1,613	32	418	0	331	0	319	10,345
1	83	18	161.2	96.4	52.4	48.8	5,174	526	5,980	1	477	9	13	499	10,949	131	624	71	0	558	665	959	13,958
1	84	18	254.6	108.5	46.7	125.3	4,732	347	3,600	1	737	31	36	804	17,914	1,787	386	365	0	150	0	2,460	23,062
1	85	12	408.6	213.5	96.8	174.1	10,118	631	8,571	1	672	91	40	803	18,246	156	957	235	0	76	0	2,149	21,820
1	86	3	289.5	158.0	55.4	154.2	5,974	322	3,471	1	538	23	15	577	13,060	456	0	0	0	72	0	1,768	15,355
2	82	17	114.2	59.5	31.7	37.7	3,376	229	2,835	2	348	1	13	361	7,115	280	0	192	0	0	0	117	7,704
2	83	18	161.2	96.4	52.4	48.8	5,174	526	5,980	2	494	0	0	694	14,254	2,329	0	400	0	0	0	1,492	18,475
2	84	18	254.6	108.5	46.7	125.3	4,732	347	3,600	2	660	7	34	701	15,138	3,117	9	416	0	0	0	1,428	20,107
2	85	12	408.6	213.5	96.8	174.1	10,118	631	8,571	2	490	0	63	553	12,246	163	0	819	0	324	0	1,750	15,301
2	86	3	289.5	158.0	55.4	154.2	5,974	322	3,471	2	275	9	40	325	7,025	1,015	0	6	0	0	0	1,088	9,134
3	82	17	114.2	59.5	31.7	37.7	3,376	229	2,835	3	81	358	54	492	7,630	21	0	336	0	0	0	103	8,090
3	83	18	161.2	96.4	52.4	48.8	5,174	526	5,980	3	44	795	50	889	14,419	11	0	595	0	0	0	2,780	17,803
3	84	18	254.6	108.5	46.7	125.3	4,732	347	3,600	3	82	603	72	757	13,738	117	0	1,481	0	0	0	1,691	17,026
3	85	12	408.6	213.5	96.8	174.1	10,118	631	8,571	3	30	474	240	744	14,336	11	0	1,252	0	0	0	2,309	17,908
3	86	3	289.5	158.0	55.4	154.2	5,974	322	3,471	3	69	399	115	583	10,898	0	0	250	0	0	0	1,852	13,000
4	82	17	114.2	59.5	31.7	37.7	3,376	229	2,835	4	2,758	106	63	2,927	49,129	1,603	70	561	0	484	0	1,280	53,127
4	83	18	161.2	96.4	52.4	48.8	5,174	526	5,980	4	4,093	109	288	4,490	82,371	1,974	244	2,310	1,348	1,011	1,916	15,175	106,348
4	84	18	254.6	108.5	46.7	125.3	4,732	347	3,600	4	4,353	46	698	5,097	102,103	3,750	384	1,869	0	1,002	3,538	15,314	127,960
4	85	12	408.6	213.5	96.8	174.1	10,118	631	8,571	4	5,813	80	953	6,846	135,638	2,071	553	4,426	0	496	11,393	20,905	175,484
4	86	3	289.5	158.0	55.4	154.2	5,974	322	3,471	4	3,975	46	664	4,685	97,850	1,057	0	4,330	0	2	7,356	14,490	125,084
5	82	17	114.2	59.5	31.7	37.7	3,376	229	2,835	5	3,273	100	238	3,611	61,148	42	0	297	257,385	3,775	11,015	7,507	341,170
5	83	18	161.2	96.4	52.4	48.8	5,174	526	5,980	5	4,692	843	968	6,502	117,255	727	0	1,538	390,733	6,449	22,878	31,389	570,989
5	84	18	254.6	108.5	46.7	125.3	4,732	347	3,600	5	3,856	554	1,371	5,782	111,023	90	0	790	324,482	6,608	11,681	32,324	486,997
5	85	12	408.6	213.5	96.8	174.1	10,118	631	8,571	5	6,001	1,043	2,762	9,807	192,938	721	0	4,020	514,601	18,834	17,203	70,012	818,329
5	86	3	289.5	158.0	55.4	154.2	5,974	322	3,471	5	4,603	1,036	2,150	7,190	146,039	193	0	2,882	302,598	3,187	4,718	42,986	502,603
6	82	17	114.2	59.5	31.7	37.7	3,376	229	2,835	6	145	2	2	149	2,413	0	0	1	0	0	0	38	2,451
6	83	18	161.2	96.4	52.4	48.8	5,174	526	5,980	6	171	0	13	185	3,288	0	0	1	0	0	0	443	3,732
6	84	18	254.6	108.5	46.7	125.3	4,732	347	3,600	6	198	1	46	245	4,865	0	0	3	0	0	0	615	5,483
6	85	12	408.6	213.5	96.8	174.1	10,118	631	8,571	6	178	0	73	250	5,033	0	0	0	0	0	0	748	5,781
6	86	3	289.5	158.0	55.4	154.2	5,974	322	3,471	6	193	0	11	204	4,068	0	0	0	0	0	0	611	4,679
7	82	17	114.2	59.5	31.7	37.7	3,376	229	2,835	7	122	0	0	122	2,288	0	0	0	0	294	210	159	2,952
7	83	18	161.2	96.4	52.4	48.8	5,174	526	5,980	7	161	7	0	168	3,294	0	20	0	0	253	0	350	3,917
7	84	18	254.6	108.5	46.7	125.3	4,732	347	3,600	7	30	0	2	33	684	0	0	0	0	1	0	0	685
7	85	12	408.6	213.5	96.8	174.1	10,118	631	8,571	7	299	52	13	364	8,237	0	0	14	0	10,079	0	302	18,632
7	86	3	289.5	158.0	55.4	154.2	5,974	322	3,471	7	71	0	0	71	2,102	0	0	0	0	1,781	0	0	3,884
8	82	17	114.2	59.5	31.7	37.7	3,376	229	2,835	8	996	90	8	1,094	18,526	2	0	331	8,650	1,954	95	650	30,227
8	83	18	161.2	96.4	52.4	48.8	5,174	526	5,980	8	673	12	8	693	12,261	0	23	6	0	740	10	1,656	14,696
8	84	18	254.6	108.5	46.7	125.3	4,732	347	3,600	8	595	0	18	613	11,477	0	100	0	0	10	0	1,545	13,133
8	85	12	408.6	213.5	96.8	174.1	10,118	631	8,571	8	835	7	43	885	17,085	0	0	22	0	31	0	2,648	19,785
8	86	3	289.5	158.0	55.4	154.2	5,974	322	3,471	8	588	0	19	608	12,299	0	0	49	0	3	0	1,821	14,173
TOTAL	82	17	114.2	59.5	31.7	37.7	3,376	229	2,835	TOTAL	8,077	700	378	9,155	155,880	3,561	102	2,158	266,035	6,838	11,320	10,172	456,068
TOTAL	83	18	161.2	96.4	52.4	48.8	5,174	526	5,980	TOTAL	11,004	1,775	1,340	14,119	258,090	5,172	911	4,921	392,081	9,031	25,470	54,243	749,919
TOTAL	84	18	254.6	108.5	46.7	125.3	4,732	347	3,600	TOTAL	10,511	1,242	2,279	14,032	276,942	8,860	879	4,924	324,482	7,771	15,218	35,378	694,453
TOTAL	85	12	408.6	213.5	96.8	174.1	10,118	631	8,571	TOTAL	14,318	1,748	4,187	20,253	403,759	3,123	1,511	10,787	514,601	29,840	28,596	100,822	1,093,039
TOTAL	86	3	289.5	158.0	55.4	154.2	5,974	322	3,471	TOTAL	9,713	1,514	3,015	14,243	293,341	2,721	0	7,517	302,598	5,045	12,074	64,616	687,912

Figure 23. Output Format for Work Phase Fiscal Year Trends

# TUNNEL 16T WORK PHASE ANALYSIS

ALL TESTS

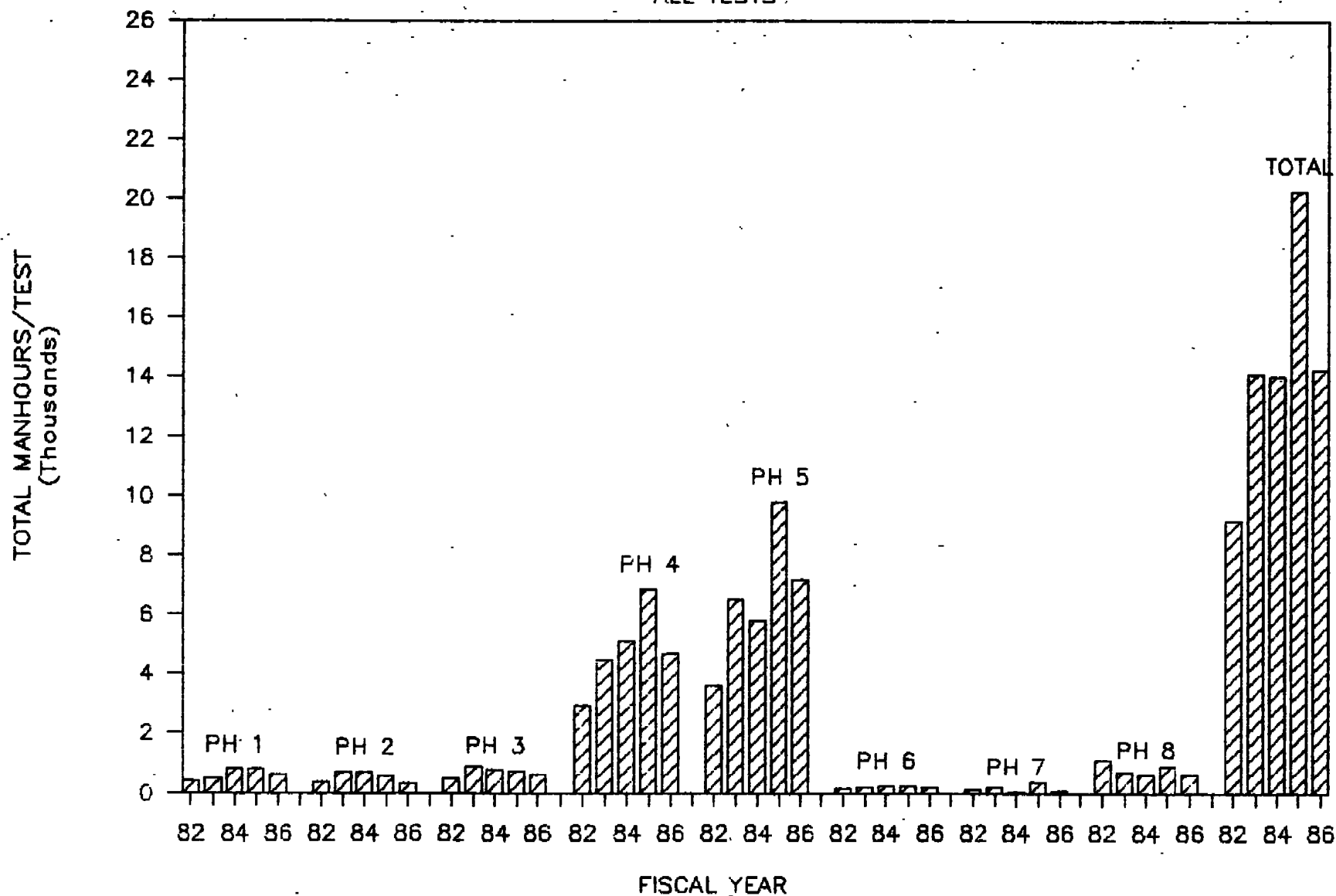
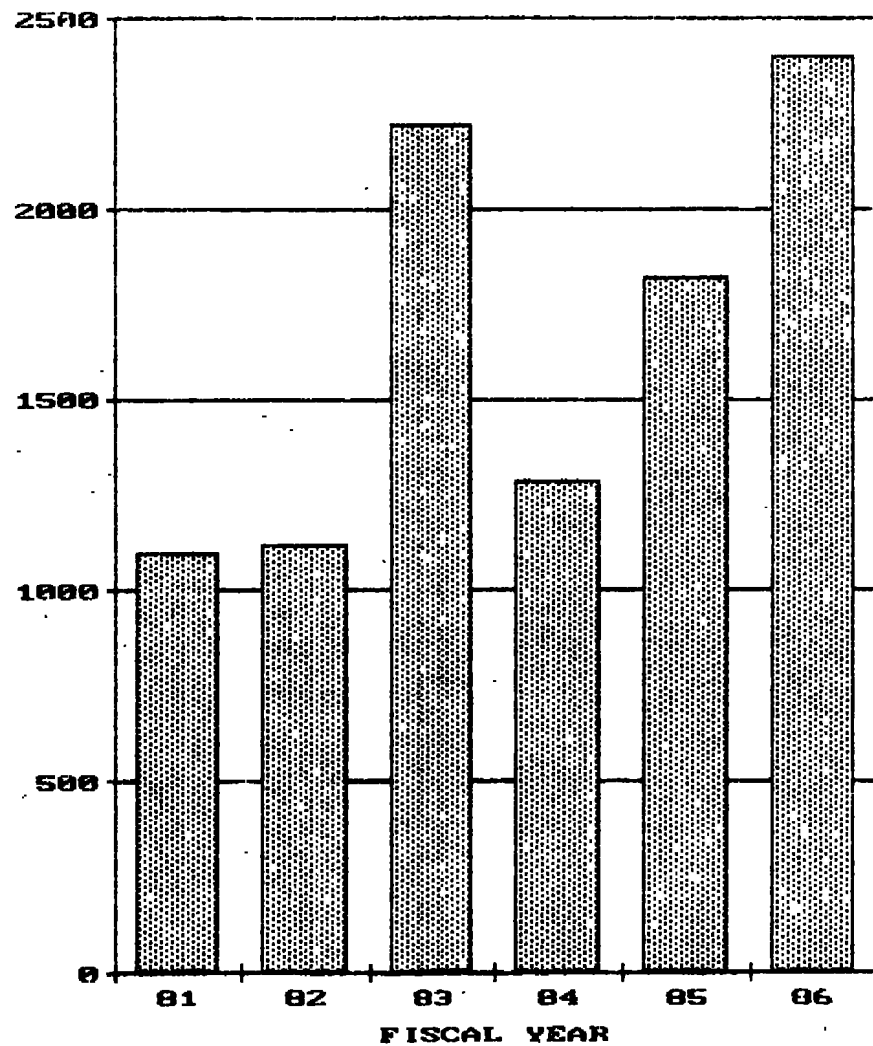


Figure 24. Manhour Variation with Fiscal Year and Work Phase

63 UOH

**TUNNEL 4T USER OCCUPANCY  
HOURS  
FY81-FY86**



**TUNNEL 4T TEST TYPES  
FY81-FY86**

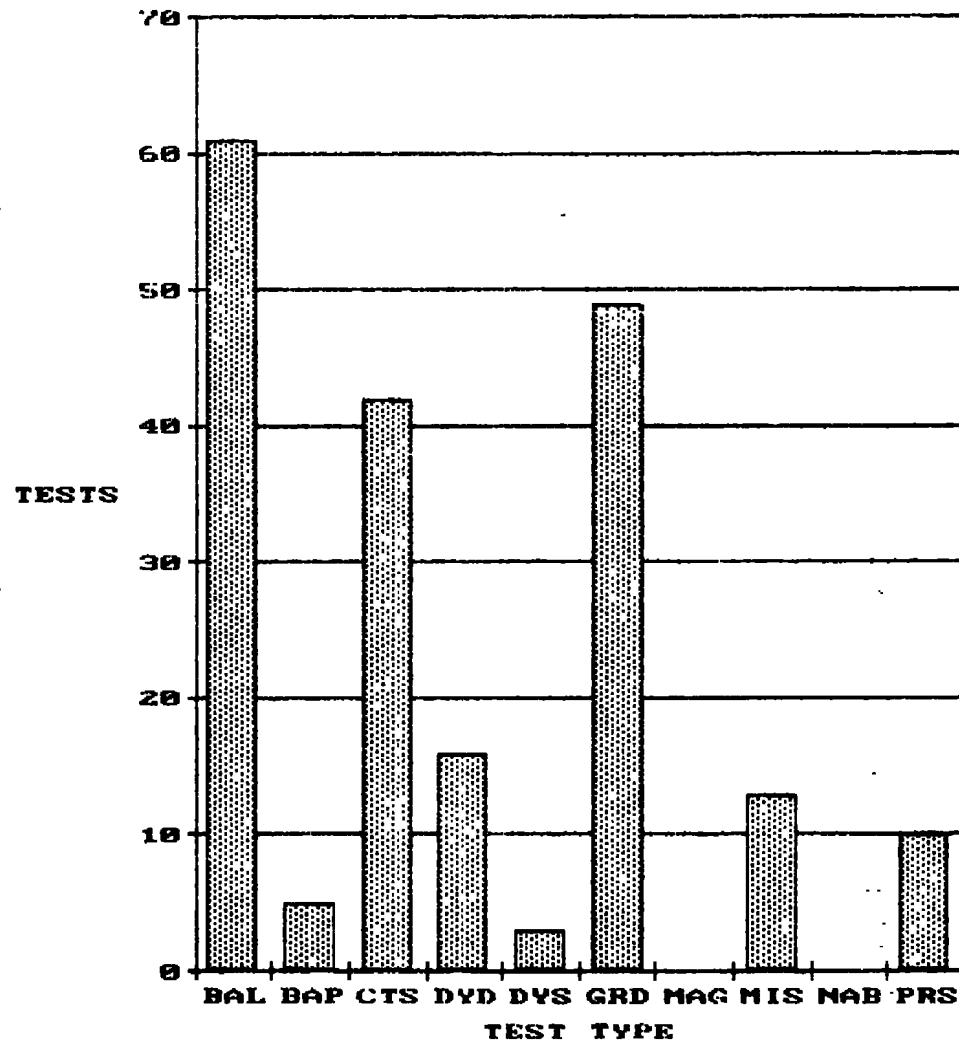


Figure 25. Economic Analysis Statistics

## APPENDIX A

### Test Database Tabulations

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## 41 TEST STATISTICS DATA BASE

ITEMS IN THE DATABASE

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A03

TEST PROJ A.F. SPONSOR	TITLE	TYPE PD	FY	P.E.	ENTR	OSH	UOM	ADM	I/R	DOWNTIME		OP	ATP	MANHOURS		DT	COST (\$)										
										SCHED	AEDC	MMH		CALSPAN	SUPPORT	TOTAL	LABOR	RAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*			
341 71	SAMSO PROJ HEART PH I	CTSC	1.1	75	G. MATTASITS	1	42.8	29.4	19.6	6.5	9.0	6.2	1,448	98	6,313	1,659	130	100	1,885	15,615	53	0	153	4,308	0	0	20,129
335 74	AFATL A/C STORE COMP	DYDC	1.2	75	R. PAULK	1	36.8	14.8	4.1	12.3	0.0	1.5	242	31	124	370	30	20	420	3,360	10	0	28	830	0	0	4,190
322 46	AFBDL I-24C	BALC	1.3	75	J. MHORIC	1	41.1	24.0	14.3	12.3	0.0	1.0	693	162	1,310	1,580	130	90	1,800	16,000	51	0	146	3,000	0	0	19,196
382 01	AFATL AIR BEARING TECH	DYSC	1.4	75	A. MANSFIELD	1	41.0	0.0	0.0	38.0	0.0	0.0	0	0	0	1,410	110	80	1,600	14,000	37	0	107	0	0	0	14,145
343 72	AFATL HIGH ALPHA AERO	BALC	1.5	75	T. SHADON	1	65.8	39.0	33.3	13.5	0.0	0.8	863	365	8,077	1,760	140	100	2,000	17,000	59	0	168	5,000	0	0	22,227
342 69	ARMY AEROSPIN CLUSTER	BALC	1.6	75	D. SMITH	1	31.9	24.8	14.3	5.4	0.0	1.4	999	140	1,870	1,230	100	70	1,400	12,000	40	0	115	3,000	0	0	15,155
341 71	SAMSO PROJ HEART PH II	BALC	1.7	75	G. MATTASITS	1	56.3	26.4	16.8	25.6	0.0	1.0	797	162	2,732	1,420	110	80	1,615	13,385	46	0	131	3,692	0	0	17,253
347 90	AEDC 4T IMPROVEMENTS	BALC	2.1	75	J. BUDN	1	2.2	2.2	2.2	0.0	0.0	0.0	110	22	1,936	250	20	10	289	3,066	9	0	26	361	0	0	3,462
346 73	AFBDL ETERNAL STORES	BALC	2.2	75	J. MHORIC	1	155.0	106.2	62.1	23.3	0.0	15.6	4,124	524	8,333	3,700	290	210	4,200	33,000	128	0	368	15,000	0	0	48,496
348 59	ASD F-15 STORE COMP	CTSC	2.3	75	B. HILL	1	77.3	48.6	34.5	6.0	0.0	8.4	1,167	241	8,635	2,020	160	120	2,300	20,000	72	0	207	7,000	0	0	27,279
345 74	AFATL A/C STORE COMP	CTSC	2.4	75	R. PAULK	1	41.7	33.5	18.2	12.0	0.0	6.3	832	87	3,385	1,640	130	90	1,860	14,900	50	0	143	3,730	0	0	18,822
344 24	AFBDL INSTR WEAPON DAY	PRSC	2.5	75	C. ANDERSON	1	73.0	58.2	32.6	12.5	0.0	1.4	1,456	279	1,196	3,170	250	180	3,600	32,000	107	0	306	8,000	0	0	40,413
338 65	AFATL AEROSPIN DISPENSER	BALC	3.1	75	H. KAUPP	1	53.2	27.7	21.1	12.5	0.0	3.8	674	224	2,380	1,850	150	100	2,100	18,000	59	0	168	4,000	0	0	22,227
353 74	AFATL A/C STORE COMP	CTSC	3.2	75	R. PAULK	1	29.8	15.0	11.9	9.4	0.0	5.3	637	62	4,110	1,070	90	60	1,220	9,740	33	0	93	2,440	0	0	12,306
354 90	AEDC 4T IMPROVEMENTS	BALC	3.3	75	B. HILL	1	16.3	6.6	5.7	7.0	0.0	2.6	251	9	2,800	660	50	40	748	7,943	24	0	68	934	0	0	8,969
350 81	ARMY PERSHING II VEN	BALC	3.4	75	B. SMILLION	1	50.0	25.6	19.7	20.0	0.0	3.3	1,150	106	3,889	2,468	200	150	2,800	23,000	72	0	207	4,000	0	0	27,279
331 75	AEDC ONERA CORRELATION	PRSC	3.5	75	H. KAUPP	1	27.0	13.5	10.0	12.0	0.0	0.5	575	62	522	1,800	144	103	2,050	18,420	59	0	169	3,680	0	0	22,328
349 68	ARMY FREE ROCKET TECH	NASC	3.6	75	E. WASHINGTON	1	87.3	33.6	23.2	42.5	0.0	9.2	713	107	4,091	3,080	245	175	3,500	29,000	91	0	260	5,000	0	0	34,351
352 53	AFBDL EXT STORES/ADV WING	PRSC	4.1	75	D. SMITH	1	95.2	71.5	57.7	9.5	0.0	12.9	3,210	404	21,375	3,080	245	175	3,500	28,000	88	0	253	10,000	0	0	38,341
351 58	AFATL A-7D FLOWFIELD	CTSC	4.2	75	J. CARMAN	1	64.3	50.1	44.3	9.0	0.0	5.2	1,389	300	9,722	2,110	168	120	2,400	21,000	65	0	186	7,000	0	0	28,251
311 75	AEDC ONERA CORRELATION	PRSC	4.3	75	H. KAUPP	1	62.9	35.3	21.8	24.2	0.0	3.4	1,016	205	1,621	1,630	130	93	1,850	16,580	46	0	133	3,320	0	0	20,079
355 43	AFBDL WING TAIL FLUTTER	FLTC	4.4	75	M. CARLETON	1	48.6	18.6	9.0	22.0	0.0	0.0	465	6	709	1,850	147	105	2,100	19,000	51	0	147	3,000	0	0	22,198
358 52	AFATL BOATTAIL MAGNUS	NASC	4.5	75	T. SHADON	1	71.0	52.4	36.3	17.4	0.0	1.2	1,735	530	25,613	3,610	287	205	4,100	36,000	100	0	286	7,000	0	0	43,386
359 93	NAVY GUIDED PROJECTILE	NASC	4.6	75	T. SHADON	1	16.0	5.5	3.1	10.5	0.0	0.0	132	23	122	880	70	50	1,000	9,000	23	0	67	1,000	0	0	10,090
360 91	AFBDL I-24C	BALC	5.1	75	J. MHORIC	1	33.8	23.9	19.3	8.0	0.0	1.9	1,143	201	2,609	1,584	126	90	1,800	17,000	46	0	133	3,000	0	0	20,180
361 78	AFBDL MICRO FIGHTER	BALC	5.2	75	C. ANDERSON	1	107.8	95.1	51.8	6.0	0.0	3.3	2,923	602	5,819	3,260	259	185	3,700	32,000	104	0	300	13,000	0	0	45,404
357 61	AEDC MACH 6 EXP FIGHTER	PRSC	5.3	75	B. ALLEE	1	53.0	37.9	22.3	12.0	0.0	3.1	940	234	2,644	2,110	168	120	2,400	21,000	65	0	186	7,000	0	0	28,251
366 94	ADTC MODIFIED EDSB-II	BALC	5.4	75	H. KAUPP	1	67.7	42.6	28.9	23.0	0.0	3.6	1,337	296	3,453	2,070	165	118	2,356	19,535	65	0	187	8,618	0	0	28,456
356 63	AFATL MUTUAL AERO EFFECTS	CTSC	6.1	75	G. MATTASITS	1	70.4	53.6	31.8	15.0	0.0	2.8	1,469	274	5,009	2,000	160	114	2,280	18,210	63	0	182	9,110	0	0	27,565
370 79	AFATL MULTI WEAPON DESIGN	CTSC	6.2	75	D. HILL	1	10.0	9.1	0.0	0.0	0.0	0.0	210	45	909	500	40	29	570	5,000	15	0	43	1,400	0	0	6,457
363 94	ADTC MODIFIED EDSB-II	CTSC	6.3	75	J. CARMAN	1	45.1	30.0	21.4	10.0	0.0	3.6	786	133	8,752	1,530	122	87	1,744	14,465	48	0	139	6,382	0	0	21,034
368 76	AEDC 5TH STAB RESEARCH	DYSC	6.4	75	A. MANSFIELD	1	31.5	16.5	7.2	14.0	0.0	0.0	245	73	266	630	50	36	720	6,240	19	0	55	2,080	0	0	8,395
365 77	AEDC TRANS FLOWFIELD	CTSC	7.1	75	H. CUNNINGHAM	1	67.4	48.4	35.2	11.5	0.0	3.0	1,531	405	6,052	2,750	220	156	3,120	26,179	86	0	247	10,970	0	0	37,474
367 77	AEDC TRANS FLOWFIELD	CTSC	7.2	75	H. CUNNINGHAM	1	19.2	10.8	6.5	8.0	0.0	3.9	218	26	1,265	510	40	29	580	4,830	16	0	46	2,030	0	0	6,922
328 96	AFBDL HIGH ALPHA AERO	BALC	7.3	75	C. ANDERSON	1	100.8	85.2	45.9	6.5	0.0	9.1	2,487	371	8,078	3,080	240	175	3,500	28,000	107	0	306	18,300	0	0	46,415
371 84	AFBDL AIR SLEM-HUGHES	DYDC	7.4	75	B. ALLEE	1	21.5	10.3	4.0	11.5	0.0	1.0	149	22	54	273	22	16	310	2,660	9	0	25	1,160	0	0	3,854
362 84	AFBDL AIR SLEM-HUGHES	CTSC	7.5	75	J. CARMAN	1	49.1	36.8	30.3	8.0	0.0	1.5	1,132	147	15,379	2,077	165	118	2,360	20,080	67	0	192	8,790	0	0	29,129
370 79	AFATL R.J.71 WEAPON DESIGN	CTSC	8.1	75	D. HILL	1	26.9	21.3	18.4	2.0	0.0	2.2	649	128	4,108	1,566	125	89	1,780	15,430	46	0	131	4,300	0	0	19,907
369 88	ASD A-10:ASN-65A	CTSC	8.2	75	R. PAULK	1	58.8	40.5	32.0	14.0	0.0	4.3	1,362	183	11,032	2,552	203	145	2,900	25,000	79	0	226	9,000	0	0	34,305
372 83	ASD ASALM-MARTIN	BALC	8.3	75	P. YEAKLEY	1	71.9	49.9	27.3	20.5	0.0	1.5	1,139	317	3,869	2,376	189	135	2,700	21,000	74	0	213	11,000	0	0	32,287
375 86	AFATL F-16/84 AIR	BALC	8.4	75	T. SHADON	1	10.2	5.2	3.1	5.0	0.0	0.0	117	36	711	405	32	23	460	4,200	12	0	35	1,020	0	0	5,267
374 63	AFATL MUTUAL AERO EFFECTS	CTSC	8.5	75	G. MATTASITS	1	94.0	61.0	52.0	14.0	0.0	15.5	2,003	213	6,126	3,274	260	186	3,720	29,790	104	0	298	14,890	0	0	45,081
373 89	ASD ASALM-MCDONALD	BALC	9.1	75	H. KAUPP	1	57.9	51.6	28.3	5.0	0.0	1.3	1,545	284	5,037	2,464	196	140	2,800	26,000	86	0	246	11,000	0	0	37,332
378 97	AFBDL I-24C	BALC	9.2	75	E. WASHINGTON	1	38.0	24.2	14.3	9.0	0.0	0.2	720	174	3,090	1,056	84	60	1,200	10,000	35	0	100	5,000	0	0	15,135
376 76	AEDC 5TH STAB RESEARCH	DYSC	9.3	75	A. MANSFIELD	1	49.0	33.5	25.7	6.0	0.0	9.5	1,169	69	3,309	2,253	179	128	2,560	22,290	69	0	198	7,430	0	0	29,987
381 79	AFATL MULTI WEAPON DESIGN	CTSC	9.4	75	D. HILL	1	44.5	32.1	25.3	11.0	0.0	1.4	823	174	6,319	1,980	158	113	2,250	19,570	59	0	170	6,000	0	0	25,890
393 05	ADTC MODIFIED EDSB-II	BALC	9.5	75	D. SMITH	1	83.0	53.3	30.9	26.0	0.0	1.6	1,375	377	6,384	2,376	189	135	2,700	24,000	81	0	233	11,000	0	0	35,714
377 84	AFBDL AIR SLEM-HUGHES	CTSC	10.1	75	J. CARMAN	1	145.6	115.4	86.4	22.0	0.0	7.0	3,416	528	38,755	5,922	471	337	6,730	57,269	191	0	548	25,050	0		

## 4T TEST STATISTICS DATA BASE

ITEMS IN THE DATABASE

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TEST PROJ A.F. SPONSOR	TITLE	TYPE PD	FY	P.E.	ENTR	OSH	UOM	ADM	I/R	SCHED	AEDC	MMH	OF	ATP	MANHOURS		COST (\$)										TOTAL
															CALSPAN	SUPPORT	OT	TOTAL	LABOR	NAT.	TRAV.	PSI	ELEC	COMP	GTWEP		
384 02	AFATL F-4C STAB/CONTROL	BALC	10.3	75 E. WASHINGTON	1	39.3	29.3	19.9	7.0	0.0	3.0	1,151	177	5,698	1,584	126	90	1,800	15,000	40	0	140	6,000	0	0	21,180	
354 90	AEDC 4T IMPROVEMENTS	BALC	11.1	75 M. CARLETON	1	7.0	3.1	3.5	3.5	0.0	0.4	148	20	1,773	404	32	23	459	4,877	13	0	36	574	0	0	5,500	
386 86	AFATL MK B2/B4 AIR	BALC	11.2	75 T. SHADON	1	24.0	12.9	6.8	4.0	0.0	3.0	732	72	907	898	71	51	1,020	9,260	27	0	77	2,240	0	0	11,600	
385 86	AFATL MK B2/B4 AIR	DYSC	11.3	75 C. ANDERSON	1	27.4	18.8	10.8	10.8	0.0	3.0	449	122	469	1,426	113	81	1,620	14,680	42	0	122	3,370	0	0	18,410	
354 90	AEDC 4T IMPROVEMENTS	DYSC	11.4	75 M. CARLETON	1	2.7	1.7	0.8	0.8	0.0	0.0	283	14	54	92	7	5	105	1,115	6	0	17	1,400	0	0	2,531	
388 76	AEDC DYN STAB RESEARCH	DYSC	11.5	75 A. HANSFIELD	1	76.8	46.2	36.3	23.7	0.0	2.4	1,417	351	1,666	3,186	253	181	3,620	31,470	97	0	279	10,490	0	0	42,330	
387 86	AFATL MK B2/B4 AIR	NAGC	11.6	75 T. SHADON	1	66.4	44.7	30.8	14.0	0.0	1.2	1,215	79	947	4,048	322	230	4,600	41,860	121	0	346	10,170	0	0	52,490	
389 14	ADTC AIM-4 SEEK TELL	BALC	11.7	75 J. WHORIC	1	30.2	17.6	12.3	11.0	0.0	1.6	562	110	1,611	1,056	84	60	1,200	11,000	35	0	100	4,000	0	0	15,130	
391 03	AFATL HAST PROBE	PRSC	11.8	75 H. CUNNINGHAM	1	37.7	19.3	15.7	9.0	0.0	9.4	755	77	979	1,496	119	85	1,700	15,000	44	0	127	4,000	0	0	19,170	
382 01	AFATL F-15 FLOWFIELD	CTSC	12.1	75 R. HEIN	1	68.2	52.9	41.7	8.0	0.0	7.3	1,562	343	10,647	1,936	154	110	2,200	20,000	72	0	206	11,030	0	0	31,271	
395 79	AFATL MULTI WEAPON DESIGN	BALC	12.2	75 D. HILL	1	61.7	38.3	24.7	5.0	0.0	4.2	835	140	3,500	1,344	107	76	1,527	13,280	48	0	137	7,304	0	0	20,760	
392 06	ASD B-1B ESCAPE CAPSULE	NAGC	12.3	75 G. HATTASITS	1	59.5	41.6	33.4	15.0	0.0	2.9	1,117	300	4,662	1,848	147	105	2,100	18,000	63	0	180	9,000	0	0	27,240	
394 12	AFDDL I-24C	BALC	12.4	75 D. SMITH	1	26.4	18.4	13.2	8.0	0.0	0.0	645	171	2,185	792	63	45	900	8,000	28	0	80	4,000	0	0	12,100	
394 12	AFDDL I-24C	BALC	1.1	76 D. SMITH	1	8.3	7.3	5.0	1.0	0.0	0.0	264	42	546	264	21	15	300	3,000	14	0	40	3,000	0	0	6,050	
396 60	AFDDL INCREMENTAL GROWTH	BALC	1.2	76 G. GOWILLION	1	72.1	57.2	39.2	7.0	0.0	1.2	1,993	507	4,689	1,584	126	90	1,800	17,000	102	0	293	27,000	0	0	44,390	
398 98	ARMY DIRECT FIRE VEH.	BALC	1.3	76 P. YEAKLEY	1	45.3	31.1	20.2	12.5	0.0	1.7	1,035	176	2,975	1,408	112	80	1,600	14,000	65	0	186	14,000	0	0	28,250	
397 11	AFATL STUBBY MOBO	BALC	1.4	76 H. KAUPP	1	71.5	60.6	43.0	8.5	0.0	2.4	1,856	478	6,938	2,376	189	135	2,700	25,000	123	0	353	28,000	0	0	53,470	
402 A1	AEDC WALL INTERFERENCE	PRSC	1.5	76 A. HANSFIELD	1	21.2	7.9	5.7	13.0	0.0	0.3	339	34	198	616	49	35	700	7,000	26	0	73	4,000	0	0	11,090	
390 07	NASA SHUTTLE PLUME TECH	NAGC	1.6	76 D. BAKER	1	58.8	34.8	4.6	23.0	0.0	0.0	247	20	40	1,848	147	105	2,100	20,000	53	0	153	3,000	0	0	23,200	
401 A2	ADTC F-111/GBU-15	CTSC	2.1	76 J. CARMAN	1	76.7	53.8	37.6	17.0	0.0	5.1	1,338	365	6,860	2,200	175	125	2,500	24,000	114	0	326	25,000	0	0	49,440	
400 10	ASD F-5/HAVERICK	BALC	2.2	76 H. CUNNINGHAM	1	37.1	26.1	10.9	10.0	0.0	5.3	616	116	1,082	3,344	266	190	3,800	34,000	102	0	293	10,000	0	0	44,390	
400 10	ASD F-5/HAVERICK	CTSC	2.3	76 H. CUNNINGHAM	1	51.5	39.2	29.8	3.0	0.0	5.0	925	89	16,052	3,872	388	220	4,400	45,000	142	0	406	16,000	0	0	61,540	
408 A8	AFATL CAPTIVE LOADS CORR	BALC	2.4	76 T. SHADON	1	31.2	20.6	8.7	6.0	0.0	4.2	501	63	562	880	70	50	1,000	9,439	41	0	118	8,208	0	0	17,800	
408 A8	AFATL CAPTIVE LOADS CORR	CTSC	2.5	76 T. SHADON	1	31.2	23.4	12.5	2.0	0.0	4.2	569	54	7,034	1,320	105	75	1,500	13,561	59	0	169	11,792	0	0	25,580	
405 A7	AFDDL HIGH ALPHA MAN RIS	BALC	3.1	76 D. SMITH	1	57.7	50.6	33.6	7.0	0.0	0.1	1,624	235	5,148	1,496	119	85	1,700	15,201	85	0	243	21,212	0	0	36,740	
406 A0	AFDDL AIR SLEW	NAGC	3.2	76 R. PAULK	1	44.0	24.5	18.0	17.5	0.0	1.0	726	39	499	3,784	301	215	4,300	42,000	123	0	353	11,000	0	0	53,470	
393 08	AFATL MANEUVERING ARM	BALC	3.3	76 G. HATTASITS	1	35.6	27.9	19.9	6.0	0.0	1.7	771	121	2,621	1,584	126	90	1,800	16,000	67	0	193	13,600	0	0	29,260	
407 79	AFATL MULTI WEAPON DESIGN	CTSC	3.4	76 D. HILL	1	53.7	42.3	30.0	8.5	0.0	2.9	1,367	182	5,696	2,050	163	117	2,330	19,840	85	0	245	16,930	0	0	37,100	
409 67	NASA SHUTTLE PLUME TECH	NAGC	4.1	76 C. ANDERSON	1	107.4	52.4	28.0	43.0	0.0	11.0	1,159	128	325	3,432	273	195	3,900	36,000	139	0	400	24,600	0	0	60,530	
403 A3	AFATL F-15 STAB & CONT	BALC	4.2	76 J. WHORIC	1	36.7	29.7	18.7	7.0	0.0	0.0	715	224	2,993	1,584	126	90	1,800	17,000	72	0	206	14,000	0	0	31,270	
404 A6	ASD F-4C/DART	BALC	4.3	76 E. WASHINGTON	1	21.8	15.6	11.1	6.0	0.0	0.2	395	126	1,577	1,320	105	75	1,500	13,000	46	0	133	7,000	0	0	20,180	
410 A7	AFDDL HIGH ALPHA INV TECH	BALC	4.4	76 D. SMITH	1	116.5	107.7	72.5	4.3	0.0	4.5	3,347	537	11,428	3,344	266	190	3,800	32,799	182	0	523	45,782	0	0	79,280	
399 13	ASD F-16 STORE SEP	CTSC	5.1	76 J. CARMAN	1	86.5	56.2	29.9	12.5	0.0	17.8	1,056	161	6,038	3,784	301	215	4,300	40,000	146	0	420	23,000	0	0	63,560	
411 A4	AFATL F-16 FLOWFIELD	CTSC	5.2	76 B. ALLEE	1	56.0	47.1	27.8	3.8	0.0	5.1	1,107	152	5,996	2,112	168	120	2,400	22,000	95	0	273	19,000	0	0	41,360	
415 A5	AFATL AERO INTERFERENCE	CTSC	5.3	76 G. GOWILLION	1	36.3	22.0	14.7	8.0	0.0	1.3	571	138	4,551	1,584	126	90	1,800	16,000	58	0	166	9,000	0	0	25,220	
412 B5	ASD F-15 SUPERS FUEL TANK	CTSC	5.4	76 R. HEIN	1	52.8	15.1	10.8	35.0	0.0	1.0	411	52	1,632	2,816	224	160	3,200	28,562	63	0	238	7,140	0	0	36,020	
412 B5	ASD F-15 SUPERS FUEL TANK	DYDC	5.5	76 R. HEIN	1	11.1	4.9	1.3	6.0	0.0	0.9	133	4	8	352	28	20	400	3,438	13	0	36	2,000	0	0	5,480	
421 B1	ARMY M422 PROJECTILE	NAGC	6.1	76 T. SHADON	1	34.2	17.1	15.7	17.0	0.0	0.1	747	251	10,573	2,816	224	160	3,200	31,000	104	0	300	14,000	0	0	45,400	
416 B2	AEDC 4T IMPROVEMENTS	CTSC	6.2	76 D. HILL	1	37.9	23.9	14.0	12.0	0.0	2.0	648	112	3,196	1,144	91	65	1,500	12,000	51	0	147	10,000	0	0	22,190	
414 B9	AFDDL I-24C	BALC	6.3	76 D. SMITH	1	72.3	60.3	44.4	8.3	0.0	3.7	2,029	526	7,325	2,728	217	155	3,100	27,000	118	0	340	24,000	0	0	51,430	
425 B0	AEDC F-4C LATERAL STAB	BALC	6.4	76 E. WASHINGTON	1	18.3	12.3	7.2	11.5	0.0	0.0	297	69	1,574	554	44	32	630	5,760	22	0	64	3,880	0	0	9,720	
423 C1	AFDDL AIR SLEW	BALC	6.5	76 J. WHORIC	1	51.9	33.7	19.8	10.0	0.0	8.2	988	169	2,937	1,672	133	95	1,900	18,000	74	0	213	14,000	0	0	32,260	
427 C0	AFDDL AIR SLEW	CTSC	7.1	76 D. HILL	1	33.7	17.4	13.8	13.0	0.0	3.3	487	38	5,020	1,408	112	80	1,600	15,000	51	0	147	7,000	0	0	22,190	
428 B3	AFATL F-111/MKB2 AIR	CTSC	7.2	76 H. CUNNINGHAM	1	48.1	37.1	29.4	10.0	0.0	1.0	1,147	165	8,579	1,672	133	95	1,900	17,000	74	0	213	15,000	0	0	32,260	
422 B0	AEDC 4T IMPROVEMENTS	CTSC	7.3	76 J. CARMAN	1	15.5	9.5	7.7	6.0	0.0	0.0	251	23	3,630	590	47	34	670	6,160	24	0	69	4,150	0	0	10,460	
413 C2	AFDDL AIR SLEW	BALC	7.4	76 E. WASHINGTON	1	26.0	14.5	9.8	9.0	0.0	2.5	478	94	1,337	2,024	161	115	2,300	20,000	58	0	166	5,000	0	0	25,220	
426 B7	ASD ASALA-MARTIN	BALC	7.5	76 P. YEAKLEY	1	42.0	23.8	15.9	17.0	0.0	1.2	616	152	1,498	1,760	140	100	2,000	18,000	63	0	180	9,000	0	0	27,240	
419 B4	AFATL MK B2/B4 AIR	BALC	7.6	76 C. ANDERSON	1	54.3	30.8	19.4	20.5	0.0	1.3	751	213	1,738	2,165	172	123	2,460	24,000	78	0	224	9,530	0	0	33,920	
417 B4	AFATL MK B2/B4 AIR	DYSC	7.7	76 R. PAULK	1	40.7	24.4	18.6	16.0	0.0	2.0	595	69														



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TEST PROJ A.F. SPONSOR	TITLE	TYPE PD	FY	P.E.	ENTR OSM	UOM	ADN	I/R	SCHED	AEDC	MMH	DOWNTIME		HOURS		COST (\$)										TOTAL		
												OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER				
436 80	AEDC	4T IMPROVEMENTS	PRSC	7.8	76	C. ANDERSON	1	41.8	19.7	13.6	20.0	0.0	2.1	603	63	371	1,047	83	60	1,190	10,886	42	0	121	7,320	0	0	18,363
438 80	AEDC	4T IMPROVEMENTS	MISC	8.1	76	G. GONILLION	1	34.5	19.0	16.2	13.0	0.0	1.5	841	46	1,136	1,250	99	71	1,420	12,960	50	0	144	8,720	0	0	21,875
420 84	AFATL	NK 82/84 AIR	NASC	8.2	76	R. PAULK	1	37.0	16.9	14.9	13.5	0.0	5.6	490	23	10,325	1,463	132	95	1,890	18,500	60	0	172	7,320	0	0	26,052
430 C7	AFATL	SUPERS ROCKET LAUN	BALC	8.3	76	D. SMITH	1	54.4	30.6	20.1	23.0	0.0	0.8	764	248	3,067	1,998	159	114	2,270	21,070	77	0	221	12,160	0	0	33,528
433 80	AFATL	MANEUVER AIR-AIR	CTSC	8.4	76	G. MATTASITS	1	45.5	20.4	15.1	22.0	0.0	2.1	417	152	2,207	1,320	105	75	1,500	13,000	49	0	140	8,000	0	0	21,189
437 85	AFATL	SUPERS ROCKET LAUN	CTSC	8.5	76	H. KIBER	1	15.4	8.3	5.9	6.0	0.0	1.1	202	70	796	625	50	36	710	6,140	22	0	63	3,300	0	0	9,525
429 86	ASD	ASALM-MCDONALD	BALC	8.6	76	H. KAUPP	1	69.3	47.1	31.7	21.0	0.0	1.2	1,707	468	3,963	1,232	98	70	1,400	16,006	95	0	273	25,000	0	0	41,368
418 C3	AFATL	LBD SEEKER HEAD	BALC	8.7	76	R. ELMELL	1	30.2	20.5	15.3	7.0	0.0	2.7	672	211	2,710	1,496	119	85	1,700	15,000	53	0	153	8,000	0	0	23,207
439 80	AEDC	4T IMPROVEMENTS	DYSC	9.1	76	M. CARLETON	1	60.0	25.0	19.0	35.0	0.0	0.0	771	61	1,296	1,470	117	84	1,670	15,200	59	0	169	10,230	0	0	25,658
435 C9	AFBFL	FOREIGN ROCKET	CTSC	9.2	76	P. KIBER	1	44.2	34.3	24.6	8.6	0.0	0.3	757	325	5,448	1,760	140	100	2,000	20,000	77	0	220	13,000	0	0	33,296
441 E1	AFATL	NER/VER COMPARISON	CTSC	9.3	76	J. CARMAN	1	84.0	50.7	39.5	29.0	0.0	3.0	1,303	362	11,057	2,376	189	135	2,700	28,000	109	0	313	19,000	0	0	47,422
438 D1	ADTC	F-111/60-15	CTSC	9.4	76	G. GONILLION	1	59.5	44.2	36.7	14.0	0.0	1.3	1,184	256	14,643	2,288	182	130	2,600	27,000	100	0	286	16,000	0	0	43,386
440 C8	SAMSO	WIRUTENAN INST PAY	PRSC	9.5	76	D. CANNILL	1	53.8	30.2	33.2	12.0	0.0	3.6	1,593	167	3,285	2,728	217	155	3,100	30,000	128	0	366	25,000	0	0	55,494
420 84	AFATL	NK 82/84 AIR	NASC	10.1	76	R. PAULK	1	50.2	24.1	20.4	25.0	0.0	1.1	679	34	415	2,279	181	130	2,390	25,310	82	0	235	10,010	0	0	35,637
443 89	NAVY	FUEL AIR EXPLOSIVES	BALC	10.2	76	R. ELMELL	1	61.3	47.6	34.7	10.0	0.0	3.7	1,367	389	6,103	1,760	140	100	2,000	19,000	86	0	246	18,000	0	0	37,332
444 D3	AFBFL	ADV AERD COMFIS	PRSC	10.3	76	J. WHORIC	1	118.6	87.4	61.9	19.0	0.0	4.7	3,247	381	4,896	5,456	434	310	6,200	60,000	267	0	766	55,000	0	0	116,033
445 E3	NASA	SOLID ROCKET BOOSTER	BALC	11.1	76	R. GUINN	1	17.6	8.1	4.9	7.5	0.0	2.0	252	40	605	1,144	91	65	1,300	11,000	32	0	93	3,000	0	0	14,126
434 C6	AEDC	4T IMPROVEMENTS	MISC	11.2	76	J. GUINN	1	1.3	1.3	1.3	0.0	0.0	0.0	75	22	543	106	8	6	120	1,040	5	0	14	1,000	0	0	2,058
436 C6	AFATL	F-16 FLOWFIELD	CTSC	11.3	76	B. ALLEE	1	91.8	58.7	40.5	26.0	0.0	6.1	1,687	276	10,013	2,640	210	150	3,000	27,000	114	0	326	22,000	0	0	49,440
446 D5	AFATL	SUPERS ROCKET LAUN	CTSC	11.4	76	H. KIBER	1	16.3	11.5	6.6	4.5	0.0	0.3	165	55	745	695	55	40	790	6,860	25	0	70	3,700	0	0	10,655
442 79	AFATL	MULTI WEAPON DESIGN	CTSC	11.5	76	D. HILL	1	48.3	26.3	21.4	11.0	0.0	11.0	723	104	4,951	1,470	117	84	1,670	14,160	63	0	181	13,070	0	0	27,475
449 86	AFATL	ACTIVE LASER SEEKER	BALC	11.6	76	D. SMITH	1	49.1	27.3	20.2	19.0	0.0	0.0	849	222	1,591	1,760	140	100	2,000	19,000	67	0	193	10,000	0	0	29,260
448 E5	ADTC	F-4/FOREIGN ROCKET	BALC	11.7	76	J. HERMAN	1	24.0	7.7	5.9	12.0	0.0	7.1	245	52	752	1,144	91	65	1,300	13,000	37	0	107	3,000	0	0	16,144
447 89	AFBFL	ADV TECH WING	BALC	12.2	76	E. WASHINGTON	1	91.5	58.8	32.6	27.0	0.0	5.7	2,099	207	3,232	2,992	238	170	3,400	32,000	125	0	360	22,000	0	0	6,054
432 C5	ASD	F-16 FREE DROP	CTSC	12.3	76	J. CARMAN	1	14.0	3.0	1.8	1.8	0.0	5.1	64	9	441	528	42	30	600	5,916	17	0	47	1,200	0	0	7,180
430 C7	AFATL	SUPERS ROCKET LAUN	BALC	12.5	76	D. SMITH	1	15.0	8.7	4.7	5.5	0.0	0.8	296	43	507	466	37	27	530	4,730	18	0	52	2,640	0	0	7,840
450 80	ADTC	LOW COST LIGHT MISS.	BALC	1.1	76.5	P. YEAKLEY	1	44.5	15.1	15.0	24.5	0.0	3.9	671	419	1,813	1,144	91	65	1,300	13,000	58	0	166	12,000	0	0	25,224
456 86	AFATL	ACTIVE LASER SEEKER	BALC	1.2	76.5	D. SMITH	1	11.8	6.9	6.1	4.7	0.0	0.2	206	87	885	528	42	30	600	5,630	21	0	60	3,400	0	0	9,111
451 E3	ADTC	UNGUIDED SUW-34	CTSC	1.3	76.5	G. GONILLION	1	27.3	21.2	14.4	5.0	0.0	1.1	632	121	2,026	1,258	100	72	1,430	13,400	51	0	145	8,400	0	0	21,996
451 F7	AFATL	NER/VER COMPARISON	BALC	1.4	76.5	R. HEIM	1	47.5	26.3	22.5	14.5	0.0	6.7	635	216	4,062	1,954	155	111	2,220	20,850	79	0	226	13,150	0	0	34,325
452 E3	ASD	F-4/NAVERICK	BALC	1.5	76.5	J. WRIGHT	1	40.3	28.0	21.2	11.0	0.0	1.3	701	227	3,012	1,848	147	105	2,100	19,650	74	0	213	12,400	0	0	32,358
460 K0	ASD	F-4/NAVERICK	MISC	1.6	76.5	D. HILL	1	51.9	38.5	15.1	12.0	0.0	15.0	663	197	1,278	1,311	104	75	1,490	14,000	58	0	166	10,940	0	0	25,184
452 E6	ASD	F-4/NAVERICK	CTSC	1.7	76.5	J. WRIGHT	1	3.4	3.4	2.5	0.0	0.0	0.0	82	21	392	238	19	14	270	2,540	9	0	27	1,460	0	0	4,036
458 F4	ASD	ASALM-MCDONALD	PRSC	2.1	76.5	H. KAUPP	1	130.0	77.0	67.1	14.0	0.0	7.6	2,254	167	33,076	5,834	464	332	6,630	62,300	236	0	676	39,200	0	0	102,411
464 K0	AEDC	4T IMPROVEMENTS	PRSC	2.2	76.5	H. KAUPP	1	31.6	9.6	8.9	19.0	0.0	3.0	400	60	368	774	62	44	880	8,500	31	0	90	5,200	0	0	13,621
459 F3	AFATL	GRID SUBSTANTIATION	CTSC	2.3	76.5	H. KIBER	1	3.3	3.3	3.0	0.0	0.0	0.0	165	24	124	264	21	15	300	2,820	13	0	37	2,720	0	0	5,590
462 53	AFBFL	ADV AERD COMFIS	BALC	2.4	76.5	J. WHORIC	1	131.4	81.6	67.0	26.0	0.0	23.8	2,376	451	20,013	5,826	463	331	6,620	62,150	235	0	675	39,150	0	0	102,220
455 E9	ASD	F-16 PROBE	PRSC	2.5	76.5	R. PAULK	1	66.4	56.6	32.9	9.0	0.0	0.8	1,770	292	4,546	2,860	228	163	3,250	30,500	115	0	331	19,200	0	0	50,146
461 E0	AEDC	4T IMPROVEMENTS	MISC	2.6	76.5	J. HERMAN	1	60.5	29.6	12.9	24.5	0.0	5.9	727	104	633	1,126	90	64	1,280	12,000	45	0	130	7,500	0	0	19,675
463 F8	ASD	F-16 STORE SEP	DYSC	3.1	76.5	G. MATTASITS	1	36.7	8.6	4.3	28.0	0.0	0.1	209	25	135	378	30	22	430	4,000	15	0	43	2,500	0	0	6,556
463 F8	ASD	F-16 STORE SEP	CTSC	3.2	76.5	G. MATTASITS	1	28.4	11.5	6.5	11.9	0.0	35.2	340	17	43	563	45	32	640	6,060	23	0	65	3,800	0	0	9,636
465 E2	AFATL	NER FREESTREAM	BALC	3.3	76.5	R. HEIM	1	200.7	127.0	80.5	35.4	0.0	3.0	2,556	256	16,991	6,996	557	398	7,950	74,700	282	0	810	47,000	0	0	122,793
465 E2	AFATL	NER FREESTREAM	BALC	1.1	77	R. HEIM	1	75.2	60.6	38.1	5.3	0.0	9.1	1,514	283	2,788	3,509	263	188	3,760	35,330	138	0	396	24,070	0	0	59,933
467 E7	AFATL	HIGH ALPHA PENET	BALC	1.2	77	P. YEAKLEY	1	12.0	5.6	4.2	6.0	0.0	0.4	146	33	300	713	57	41	610	9,690	26	0	73	2,000	0	0	11,699
454 D2	AFATL	COMP EFF BOMB	NASC	1.3	77	R. ELMELL	1	49.7	37.2	29.5	7.0	0.0	5.5	1,196	237	2,520	1,681	134	96	1,910	18,000	81	0	233	17,000	0	0	35,714
466 F7	NAVY	F-16 EX RANGE	BALC	1.4	77	R. GUINN	1	40.1	14.8	5.3	16.5	0.0	8.8	179	12	49	2,147	171	122	2,440	24,000	61	0	176	2,500	0	0	26,728
														1,710	156	3,057	1,848	147	105	2,100	20,000	102	0	292	24,000	0	0	44,755

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TEST PROJ A.F. SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	DSH	UDH	ACH	I/R	SCHED	AEDC	NMH	OP	ATP	MANHOURS		COST (\$)										TOTAL
																CALSPAN	SUPPORT	GT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER		
469 B4	AFATL CLUSTERED AIRFIELD	BALC	1.5	77	C. ANDERSON	1	22.4	10.6	7.8	9.5	0.0	2.3	390	52	587	176	14	10	200	2,407	17	0	49	5,000	0	0	7,474	
468 EB	AFFDL X-24C	BALC	1.6	77	E. WASHINGTON	1	72.2	59.2	41.6	10.5	0.0	2.5	2,051	419	5,921	2,332	186	133	2,650	27,000	130	0	373	29,000	0	0	56,503	
469 B4	AFATL CLUSTERED AIRFIELD	DYSC	2.1	77	C. ANDERSON	1	34.8	11.0	8.4	22.0	0.0	1.8	320	15	372	264	21	15	300	2,593	16	0	47	4,500	0	0	7,157	
473 L0	AEDC 4T IMPROVEMENTS	DYSC	2.2	77	M. CARLETON	1	15.5	8.4	4.6	7.0	0.0	0.1	164	19	338	431	34	25	490	5,080	17	0	49	2,300	0	0	7,446	
471 B9	ASD B-18	BRDC	2.3	77	B. ALLEE	1	177.2	124.5	57.9	27.9	0.0	24.8	3,942	327	5,497	5,368	427	305	6,100	60,000	267	0	766	55,000	0	0	116,033	
472 F9	ASD ASALM-MCDONALD	CTSC	2.4	77	J. CARMAN	1	49.3	36.2	21.4	3.8	0.0	6.3	1,207	107	9,952	2,200	175	125	2,500	26,000	100	0	286	17,000	0	0	43,586	
474 B1	AD F-111/GBU-15	BRDC	3.1	77	G. GOMILLION	1	113.4	63.8	54.0	26.3	0.0	23.3	2,643	377	15,756	3,256	259	185	3,700	37,000	172	0	493	37,000	0	0	74,665	
470 B2	ADTC F-111/GBU-15	BRDC	3.2	77	R. PAULK	1	109.0	73.5	47.4	22.7	0.0	12.8	2,248	387	12,093	3,080	245	175	3,500	35,000	153	0	440	31,000	0	0	66,593	
476 B8	AFATL BANK-TO-TURN MISSILE	BALC	4.1	77	D. SMITH	1	54.3	40.6	34.0	9.0	0.0	4.7	1,482	328	3,325	2,464	196	140	2,800	28,000	114	0	326	21,000	0	0	49,449	
481 H9	ASD ASALM	BALC	4.2	77	P. YEAKLEY	1	90.4	47.9	34.4	18.5	0.0	10.8	1,662	397	3,912	2,816	224	160	3,200	31,000	125	0	360	23,000	0	0	54,485	
482 H7	AFFDL 16T FLOWFIELD PROBE	PRSC	4.3	77	T. SHADON	1	18.3	7.2	5.6	8.6	0.0	0.1	285	26	776	1,144	91	65	1,300	13,000	39	0	113	4,000	0	0	17,153	
477 H5	AEDC 4T IMPROVEMENTS	NISC	4.4	77	R. HERMAN	1	18.0	6.3	4.2	9.5	0.0	2.2	269	13	121	396	32	23	450	4,670	20	0	56	3,770	0	0	8,516	
479 J1	AEDC HIGH ALPHA INTER	BALC	4.5	77	A. QUINN	1	37.4	25.6	11.6	10.0	0.0	1.8	767	104	1,864	1,584	126	90	1,800	17,000	65	0	186	11,000	0	0	28,251	
480 H6	AEDC 4T IMPROVEMENTS	BALC	4.6	77	E. WASHINGTON	1	42.7	21.9	18.9	20.0	0.0	0.8	907	165	2,122	1,848	147	105	2,100	21,000	79	0	226	13,000	0	0	34,305	
484 B6	AFFDL WING BODY FLOWFIELD	BRDC	5.1	77	M. KIBER	1	102.1	69.8	70.9	17.0	0.0	15.3	3,197	1,045	25,478	3,520	280	200	4,000	38,000	193	0	553	45,000	0	0	83,745	
486 J6	AFATL STORE LOADS CORR	BALC	5.2	77	R. ELMELL	1	33.2	19.7	8.4	12.0	0.0	1.9	645	102	918	1,320	105	75	1,500	15,111	56	0	161	9,000	0	0	24,328	
486 J6	AFATL STORE LOADS CORR	CTSC	5.3	77	R. ELMELL	1	21.2	16.9	10.5	2.0	0.0	1.9	526	77	1,844	1,584	125	90	1,800	18,889	61	0	175	7,400	0	0	26,525	
485 J5	AFATL SUPERS ROCKET LAUN	BALC	5.4	77	D. CAHILL	1	30.5	11.4	6.4	16.6	0.0	2.5	422	44	545	1,144	91	65	1,300	13,000	44	0	127	6,000	0	0	19,171	
487 J4	AFATL HSER FREESTREAM	BALC	5.5	77	R. HEIM	1	41.1	29.8	13.1	11.0	0.0	0.3	563	149	2,363	2,024	161	115	2,300	23,000	72	0	206	8,000	0	0	31,278	
488 H2	ASD B-18	DYDC	5.6	77	D. HILL	1	88.4	60.1	13.8	26.1	0.0	2.2	1,064	96	123	3,080	245	175	3,500	36,000	118	0	340	15,000	0	0	51,458	
483 J2	ASD F-16 FREE DROP	DYDC	6.1	77	J. WRIGHT	1	76.8	47.0	8.9	21.0	0.0	0.8	793	122	198	836	67	48	950	9,850	49	0	140	11,130	0	0	21,168	
491 L0	AEDC 4T IMPROVEMENTS	NISC	6.2	77	R. QUINN	1	60.0	17.4	7.2	42.0	0.0	1.0	378	71	866	678	54	39	770	7,980	31	0	88	5,500	0	0	13,399	
491 L0	AEDC 4T IMPROVEMENTS	BRDC	6.3	77	R. QUINN	1	62.3	15.9	12.0	45.5	0.0	0.5	501	56	3,927	1,126	90	64	1,280	13,270	47	0	135	7,030	0	0	20,482	
475 H3	AEDC TRANSONIC WALL	NISC	6.4	77	J. MORIC	1	137.0	51.0	38.0	81.0	0.0	3.1	1,626	342	790	3,555	283	202	4,040	41,900	150	0	431	22,840	0	0	65,321	
478 H5	AEDC 4T IMPROVEMENTS	PRSC	7.1	77	J. HERMAN	1	91.9	48.6	35.8	41.0	0.0	3.0	1,394	149	1,213	3,344	266	190	3,800	39,400	137	0	393	19,560	0	0	59,489	
478 H5	AEDC 4T IMPROVEMENTS	NISC	7.2	77	J. HERMAN	1	31.9	25.2	14.6	3.0	0.0	3.0	531	74	337	1,364	109	78	1,550	16,070	55	0	157	7,450	0	0	23,731	
475 H3	AEDC TRANSONIC WALL	NISC	7.3	77	J. MORIC	1	54.6	23.5	18.1	30.0	0.0	3.0	737	128	271	1,690	134	96	1,920	19,910	70	0	201	10,340	0	0	30,522	
491 L0	AEDC 4T IMPROVEMENTS	BRDC	7.4	77	R. QUINN	1	13.7	3.7	2.8	10.0	0.0	0.0	111	11	771	264	21	15	300	3,100	11	0	31	1,560	0	0	4,702	
490 K2	NAVY F-18	BRDC	8.1	77	G. MATTASITS	1	81.4	52.4	42.8	17.0	0.0	12.0	1,439	234	1,769	4,488	357	255	5,100	51,000	165	0	474	20,200	0	0	71,839	
497 J2	ASD F-16 FREE DROP	DYDC	8.2	77	J. WRIGHT	1	21.7	4.1	1.1	17.5	0.0	0.1	9	21	79	106	8	6	120	1,240	3	0	9	1,130	0	0	1,382	
493 K4	ADTC PIRANHA RINE	BALC	8.3	77	C. ANDERSON	1	27.5	12.4	10.2	11.0	0.0	3.1	360	100	1,126	1,408	112	80	1,600	17,170	51	0	148	5,000	0	0	22,369	
493 K4	ADTC PIRANHA RINE	DYSC	8.4	77	C. ANDERSON	1	30.9	12.0	9.4	16.7	0.0	3.2	271	13	455	1,320	105	75	1,500	15,830	46	0	131	3,800	0	0	19,806	
500 L0	AEDC 4T IMPROVEMENTS	DYSC	8.5	77	D. CAHILL	1	2.2	1.4	1.9	0.0	0.0	0.5	44	4	71	167	13	10	190	1,970	6	0	17	620	0	0	2,613	
494 H4	AFATL 1/20 ILAAT	BALC	8.6	77	D. CAHILL	1	29.1	17.5	13.0	10.0	0.0	1.6	361	153	1,903	1,584	126	90	1,800	18,000	53	0	153	5,000	0	0	23,207	
500 L0	AEDC 4T IMPROVEMENTS	BALC	8.7	77	D. CAHILL	1	3.8	3.5	3.8	0.0	0.0	0.6	131	31	637	1,214	97	69	1,380	14,310	37	0	108	1,840	0	0	16,295	
492 L2	ASD F-16 CTS	BALC	8.8	77	R. PAULK	1	37.5	18.8	12.6	15.0	0.0	2.5	405	158	1,732	1,320	105	75	1,500	16,610	52	0	151	6,000	0	0	22,813	
492 L2	ASD F-16 CTS	CTSC	8.9	77	R. PAULK	1	24.5	20.7	15.5	1.0	0.0	4.0	499	110	3,847	1,936	154	110	2,200	24,390	73	0	209	7,000	0	0	31,672	
504 L0	AEDC 4T IMPROVEMENTS	CTSC	9.1	77	J. CARMAN	1	6.5	5.4	3.2	0.0	0.0	1.1	93	8	565	299	24	17	340	3,530	11	0	32	1,300	0	0	4,872	
469 J7	AD F-111/DISPENSER	CTSC	9.2	77	A. HESKETH	1	83.8	53.2	42.5	11.0	0.0	19.6	1,332	207	8,751	2,464	196	140	2,800	29,000	111	0	320	19,000	0	0	48,431	
501 L6	ASD YF-16	BRDC	9.3	77	M. KIBER	1	45.7	26.3	20.8	9.0	0.0	7.9	821	198	3,515	1,945	155	111	2,210	22,920	80	0	229	11,520	0	0	34,749	
498 J9	ASD F-16 STORE SEP	CTSC	9.4	77	M. KIBER	1	203.5	145.8	121.6	6.5	0.0	51.2	3,771	341	18,925	5,720	455	325	6,500	70,000	285	0	819	53,000	0	0	124,105	
501 L6	ASD YF-16	CTSC	10.1	77	M. KIBER	1	7.7	5.5	1.6	2.0	0.0	0.2	100	8	444	150	12	9	170	1,760	7	0	21	1,400	0	0	3,191	
495 J8	ASD ASALM	BALC	10.2	77	P. YEAKLEY	1	47.9	20.8	17.3	24.7	0.0	2.4	564	324	1,550	2,288	182	130	2,600	27,000	81	0	233	8,500	0	0	35,314	
499 K3	ASD F-15 STORE SEP	DYDC	10.3	77	G. GOMILLION	1	26.9	6.3	1.9	20.0	0.0	6.1	157	8	16	176	14	10	200	2,726	11	0	31	2,000	0	0	4,766	
499 K5	ASD F-15 STORE SEP	CTSC	10.4	77	G. GOMILLION	1	52.0	25.8	21.8	15.0	0.0	5.7	751	119	3,842	2,464	196	140	2,800	31,274	98	0	282	11,000	0	0	42,654	
502 L7	AFATL 1/4 ILAAT	BALC	11.1	77	J. HERMAN	1	53.6	40.6	26.6	10.5	0.0	2.5	985	321	4,792	1,848	147	105	2,100	25,000	91	0	260	14,000	0	0	39,756	
496 K8	AFFDL SUPER CRUISE FIGHT	BALC	11.2	77	E. WASHINGTON	1	44.2	28.2	17.5	11.5	0.0	4.5	732	195	2,539	2,424	161	115	2,300	24,000	79	0	226	10,100	0	0	34,305	
505 L3	AEDC 4T IMPROVEMENTS	BRDC	11.3	77	G. HILL	1	63.6	26.4	19.9	21.0	0.0	16.2	1,417	84	3,585	2,464	19											

# 4T TEST STATISTICS DATA BASE

ITEMS IN THE DATABASE  
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TEST PROJ A.F. SPONSOR	TITLE	TYPE PD	FY	P.E.	ENTR USN	UON	ADN	I/R	SCMED	AEDC	MM	OP	ATP	MANHOURS		TOTAL	COST (\$)										TOTAL	
														CALSPAN	SUPPORT	OT	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER					
506 K3	ALC	CTUAJA CTS	CTSC	11.5	77	A. HESKETH	1	28.8	14.4	12.6	12.5	0.0	1.9	439	95	4,178	1,144	91	65	1,300	14,000	47	0	135	6,200	0	0	20,381
507 M1	AFFDL	F-111 WEAPONS BAY	PRSC	11.6	77	D. SMITH	1	35.2	19.2	12.8	15.0	0.0	1.0	487	310	1,263	1,408	112	80	1,600	19,000	60	0	173	7,000	0	0	26,233
503 L8	ADTC	COMB EFF BOMB	NABC	11.7	77	A. HANSFIELD	1	26.0	21.9	4.1	2.0	0.0	6.1	189	24	170	1,408	112	80	1,600	18,743	50	0	143	2,700	0	0	21,636
510 L9	ADTC	TRD	NABC	11.8	77	T. SHADON	1	18.9	9.6	0.8	9.0	0.0	5.5	32	4	4	79	6	5	90	930	3	0	9	450	0	0	1,392
509 L9	ADTC	TRD	CTSC	11.9	77	B. ALLEE	1	75.0	54.0	33.9	11.5	0.0	4.2	1,061	222	10,469	3,168	252	180	3,600	37,330	121	0	348	14,890	0	0	52,689
512 L3	AFFDL	VEO WING	PRSC	12.1	77	R. HEIN	1	26.7	3.5	3.5	21.5	0.0	2.4	141	9	147	352	28	20	400	4,000	14	0	40	2,000	0	0	6,054
512 L3	AFFDL	VEO WING	BALC	12.2	77	R. HEIN	1	69.6	45.7	22.2	20.8	0.0	2.4	1,008	239	2,835	2,200	175	125	2,500	26,000	93	0	266	14,000	0	0	40,359
511 L9	ADTC	TRD	BALC	12.3	77	D. CAHILL	1	34.0	15.4	9.6	14.5	0.0	4.2	408	148	1,356	1,056	84	60	1,200	13,192	45	0	128	6,000	0	0	19,364
513 M4	AFATL	F-15 CARRIAGE LOADS	BALC	12.4	77	J. WHORIC	1	24.0	12.5	9.6	10.0	0.0	1.5	327	146	1,097	1,232	98	70	1,400	18,000	52	0	150	4,500	0	0	22,702
514 L4	ASD	F-16 FREE DROP	DYDC	12.5	77	B. MATTASITS	1	73.0	49.1	15.0	21.4	0.0	2.5	882	113	123	2,024	161	115	2,300	25,000	86	0	246	12,000	0	0	37,332
510 L9	ADTC	TRD	NABC	12.6	77	T. SHADON	1	18.0	5.0	3.0	13.0	0.0	0.0	88	41	123	282	22	16	320	3,320	11	0	30	1,230	0	0	4,591
508 K6	ASD	F-16/HAVERICK	BALC	1.1	78	J. WRIGHT	1	82.9	59.2	25.7	13.5	0.0	17.2	1,074	345	3,079	1,074	85	61	1,220	14,000	63	0	180	13,000	0	0	27,242
508 K6	ASD	F-16/HAVERICK	CTSC	1.2	78	J. WRIGHT	1	123.7	90.7	73.6	16.0	0.0	10.0	2,475	1,263	28,584	3,062	244	174	3,480	39,000	176	0	506	37,000	0	0	76,682
515 M0	ASD	F-111 HAVERICK	BALC	1.3	78	J. CARMAN	1	84.7	59.8	19.4	22.0	0.0	1.9	967	269	3,215	880	70	50	1,000	11,000	60	0	173	15,000	0	0	26,233
515 M0	ASD	F-111 HAVERICK	CTSC	2.1	78	J. CARMAN	1	196.2	160.7	137.7	18.6	0.0	1.0	4,246	2,709	52,885	6,336	504	360	7,200	79,000	332	0	952	64,000	0	0	144,284
520 02	AFATL	LGB FLUID GENERATOR	PRSC	2.2	78	E. WASHINGTON	1	15.8	1.8	0.9	14.0	0.0	0.0	29	12	120	352	28	20	400	5,000	13	0	36	400	0	0	5,448
520 02	AFATL	LGB FLUID GENERATOR	MISC	2.3	78	E. WASHINGTON	1	14.7	12.7	3.0	2.0	0.0	0.0	163	45	400	1,232	98	70	1,400	17,500	47	0	134	2,600	0	0	20,280
510 L9	ADTC	TRD	NABC	2.4	78	T. SHADON	1	49.2	6.2	3.6	43.0	0.0	0.0	211	31	205	2,552	203	145	2,900	32,000	81	0	233	3,000	0	0	35,314
517 M7	AFFDL	SUPRS FUEL TANK	PRSC	3.1	78	P. YEAKLEY	1	123.0	81.5	37.8	35.0	0.0	6.5	1,570	314	3,848	3,872	308	220	4,400	49,000	165	0	473	22,000	0	0	71,638
519 M1	ASD	F-16 STORE SEP	DYDC	3.2	78	R. PAULK	1	57.0	43.5	12.1	13.0	0.0	1.8	762	103	197	1,038	83	59	1,180	13,600	75	0	216	18,800	0	0	32,691
519 M1	ASD	F-16 STORE SEP	CTSC	3.3	78	B. ALLEE	1	42.5	28.9	10.3	20.5	0.0	1.8	427	53	3,892	880	70	50	1,000	11,560	54	0	154	11,560	0	0	23,358
518 04	AFATL	F-111 STAB & COM	BALC	4.0	78	C. ANDERSON	1	85.8	65.7	44.4	14.0	0.0	3.1	1,493	814	8,739	3,784	301	215	4,300	49,000	162	0	466	21,000	0	0	70,629
526 M5	ASD	ASALM	GRDC	4.1	78	R. QUINN	1	58.6	18.3	13.8	19.0	0.0	3.2	582	265	2,460	1,320	105	75	1,500	15,700	53	0	151	7,000	0	0	22,904
526 M5	ASD	ASALM	CTSC	4.2	78	A. HANSFIELD	1	21.7	14.9	11.7	4.0	0.0	3.2	377	66	4,039	1,144	91	65	1,300	13,000	44	0	127	6,000	0	0	19,171
527 09	ASD	ASALM	BALC	4.3	78	R. TOLBERT	1	23.9	13.7	9.4	10.0	0.0	0.2	321	124	998	1,056	84	60	1,200	13,000	39	0	113	4,000	0	0	17,153
528 03	AFATL	AERO DATA CORR	BALC	4.4	78	V. STEWART	1	65.3	13.8	11.2	23.1	0.0	0.5	327	215	2,166	1,320	105	75	1,500	16,900	50	0	144	4,700	0	0	21,794
531 03	ARMY	PERSHING II VEH	DYSC	4.5	78	A. HANSFIELD	1	53.1	29.6	20.8	23.0	0.0	0.5	758	53	1,180	1,584	126	90	1,800	22,000	77	0	220	11,000	0	0	33,296
533 00	AEDC	4T IMPROVEMENTS	DYSC	4.6	78	T. SHADON	1	8.0	8.0	4.1	0.0	0.0	0.0	148	15	131	352	28	20	400	4,610	16	0	45	2,220	0	0	6,891
525 05	AFATL	AERO DATA CORR	DYSC	4.7	78	A. HANSFIELD	1	28.1	26.9	20.0	0.0	0.0	1.0	607	167	1,796	2,376	189	135	2,700	29,000	88	0	253	9,000	0	0	38,341
521 M9	NAVY	F-18 STORE SEP	CTSC	4.8	78	G. MATTASITS	1	36.6	18.8	16.0	14.5	0.0	10.4	589	110	3,745	880	70	50	1,000	10,200	44	0	127	8,800	0	0	19,171
521 M9	NAVY	F-18 STORE SEP	GRDC	4.9	78	G. MATTASITS	1	117.8	100.9	65.7	5.8	0.0	4.0	2,725	337	9,530	1,432	273	195	3,900	42,600	185	0	530	37,000	0	0	80,315
519 M1	ASD	F-16 STORE SEP	DYDC	5.1	78	R. PAULK	1	22.6	22.6	1.2	15.0	0.0	0.0	119	10	20	106	8	6	120	1,380	7	0	21	1,780	0	0	3,188
532 00	AEDC	4T IMPROVEMENTS	GRDC	5.2	78	J. CARMAN	1	30.0	9.6	8.2	17.0	0.0	3.4	349	39	745	704	56	40	800	9,220	34	0	96	5,230	0	0	14,580
532 M0	AFFDL	TRANS FLOWFIELD	GRDC	5.3	78	M. KIBER	1	94.5	71.0	58.6	19.0	0.0	4.5	2,216	573	15,144	2,728	217	155	3,100	34,000	151	0	433	31,000	0	0	65,584
524 08	AFATL	F-16 STORE SEP	GRDC	5.4	78	J. WRIGHT	1	66.6	48.5	25.7	17.0	0.0	1.1	903	341	2,367	2,288	182	130	2,600	31,000	102	0	293	13,000	0	0	44,395
530 06	ADTC	LGB	BALC	6.1	78	R. ELWELL	1	47.5	34.9	29.4	9.0	0.0	3.6	1,353	387	4,165	1,848	147	105	2,100	23,000	97	0	280	19,000	0	0	42,377
522 M3	AFATL	F-16 LOADS	BALC	6.2	78	G. GOWILLION	1	42.2	24.1	17.7	13.0	0.0	5.1	692	264	2,812	4,312	343	245	4,900	57,000	155	0	446	10,000	0	0	67,602
533 00	AEDC	4T IMPROVEMENTS	BALC	6.3	78	C. ANDERSON	1	8.4	2.5	2.6	0.0	0.0	0.1	85	22	420	220	18	13	250	2,880	10	0	28	1,270	0	0	4,187
529 M9	AFFDL	FORWARD SWEEP WING	BAPC	6.4	78	D. CAHILL	1	107.9	78.7	33.0	22.0	0.0	7.2	1,714	455	4,460	4,400	350	250	5,000	56,000	188	0	539	25,000	0	0	81,727
519 M1	ASD	F-16 STORE SEP	DYDC	7.1	78	R. PAULK	1	45.5	44.9	7.1	21.0	0.0	6.0	433	52	104	607	48	35	690	7,960	34	0	96	6,490	0	0	14,580
519 M1	ASD	F-16 STORE SEP	CTSC	7.2	78	B. ALLEE	1	38.4	24.0	9.6	5.0	0.0	5.0	345	25	1,830	818	65	47	930	10,720	37	0	106	5,170	0	0	16,033
536 M1	ASD	F-16 STORE SEP	GRDC	7.3	78	B. ALLEE	1	11.8	5.2	2.3	5.6	0.0	5.0	115	16	368	194	15	11	220	2,540	10	0	28	1,720	0	0	4,298
551 26	AFATL	F-16 STORE SEP	GRDC	7.4	78	G. MATTASITS	1	68.3	42.0	26.6	15.5	0.0	10.8	1,072	381	3,906	1,848	147	105	2,100	25,000	95	0	273	16,000	0	0	41,368
539 15	ADTC	ANRAH	GRDC	7.5	79	J. CARMAN	1	180.3	92.0	75.0	70.3	0.0	18.0	3,000	1,964	17,090	6,160	490	350	7,000	80,000	290	0	832	45,000	0	0	126,122
534 11	ARMY	HYPERV ANTI ARMOR	NABC	8.1	78	A. HESKETH	1	68.2	39.2	25.1	20.5	0.0	8.5	920	377	4,238	2,464	196	140	2,800	32,000	107	0	306	14,000	0	0	46,413
550 25	NAVY	STANDARD MISSILE	BALC	8.2	78	C. ANDERSON	1	20.6	13.6	9.8	7.0	0.0	1.1	416	148	4,167	1,232	98	70	1,400	18,000	56	0	160	6,000	0	0	24,216
535 10	AEDC	4T IMPROVEMENTS	MISC	8.3	78	R. HEIN	1	7.5	4.9	3.1	2.6	0.0	0.0	140	22	839	194	15	11	220	2,540	11	0	31	2,190	0	0	4,682
546 26	ADTC	HEL-X TOW TARGET																										

## 4T TEST STATISTICS DATA BASE

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										DOWNTIME				MANHOURS				COST (\$)												
TEST	PROJ	A.F.	SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	OSH	UOM	ADN	I/R	SCHED	AEDC	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*
548	21	AFATL	A-10 PERFORMANCE	BALC	9.1	78	P. YEAKLEY	1	59.0	48.0	27.8	10.0	0.0	1.0	1,060	466	6,773	2,376	189	135	2,700	31,000	109	0	313	16,000	0	0	47,422	
547	14	AEDC	ADAPTIVE WALLS	MISC	9.2	78	D. SMITH	1	80.5	33.0	28.3	35.8	0.0	11.7	1,127	284	857	2,024	161	115	2,300	28,000	102	0	293	16,000	0	0	44,395	
00		AEDC	4T IMPROVEMENTS	MISC	9.3	78	R. HEIN	1	8.3	8.2	7.4	0.0	0.0	0.1	307	57	620	634	50	36	720	8,300	30	0	86	4,600	0	0	13,016	
546	12	AEDC	ADAPTIVE WALLS	MISC	9.4	78	D. SMITH	1	44.2	36.7	34.4	3.0	0.0	4.5	1,233	456	6,205	2,112	168	120	2,400	29,000	109	0	313	18,000	0	0	47,422	
552	30	AFDOL	ADV FIGHTER CONCEPTS	BALC	9.5	78	R. ELWELL	1	20.7	9.6	6.5	10.0	0.0	1.1	261	105	1,003	1,056	84	60	1,200	13,000	39	0	113	4,000	0	0	17,153	
545	23	AEDC	BODY FLAP INTERACT.	BALC	9.6	78	J. WHORIC	1	34.2	23.8	16.3	10.0	0.0	0.4	656	182	3,318	1,848	147	105	2,100	28,000	88	0	253	10,000	0	0	38,341	
554	33	AFDOL	SCAMP	BALC	9.7	78	J. WRIGHT	1	68.1	47.8	25.9	10.0	0.0	11.3	1,102	302	4,106	2,112	168	120	2,400	30,000	107	0	306	16,000	0	0	46,413	
558	16	AFATL	F-16 AIR LOADS	BALC	10.1	78	G. GOMILLION	1	150.4	129.0	80.4	11.5	0.0	12.6	2,938	1,443	13,748	3,960	315	225	4,500	53,000	234	0	673	46,000	0	0	101,907	
557	24	AFDOL	FORWARD SWEPT WING	BAPC	10.2	78	D. CANNILL	1	128.8	86.4	45.6	25.0	0.0	2.1	2,453	354	4,886	3,080	245	175	3,500	38,700	186	0	534	41,500	0	0	80,920	
557	24	NAVY	STANDARD MISSILE	MISC	11.0	78	D. CANNILL	1	15.0	12.4	3.9	2.0	0.0	2.9	289	158	207	264	21	15	300	3,300	16	0	45	3,500	0	0	6,861	
553	17	AFDOL	FAVORABLE INTERF	BALC	11.1	78	C. ANDERSON	1	36.4	24.2	17.0	11.0	0.0	1.2	599	329	3,419	1,320	105	75	1,500	18,000	65	0	186	10,000	0	0	28,251	
562	40	ASD	F-16 STORE SEP	DYDC	11.2	78	B. ALLEE	1	80.3	19.2	6.4	31.3	0.0	6.3	505	53	100	924	74	53	1,050	13,000	51	0	147	5,000	0	0	22,198	
562	40	ASD	F-16 STORE SEP	CTSC	11.3	78	B. ALLEE	1	45.8	16.9	11.8	17.5	0.0	6.6	574	39	3,908	1,716	137	98	1,950	24,000	77	0	220	9,000	0	0	33,296	
564	07	AFDOL	VEDO-WING	PRSC	11.4	78	R. HEIN	1	21.9	6.7	3.6	10.0	0.0	2.3	135	36	370	352	28	20	400	4,000	16	0	47	3,000	0	0	7,063	
564	07	AFDOL	VEDO-WING	BALC	11.5	78	R. HEIN	1	117.1	94.3	47.7	23.4	0.0	2.3	2,333	558	7,854	4,224	336	240	4,800	57,600	222	0	637	38,000	0	0	96,458	
558	20	AEDC	HIGH ALPHA ROLL DYN	MISC	11.6	78	J. COLLINS	1	73.3	19.0	11.6	54.0	0.0	0.3	369	31	205	3,696	294	210	4,200	52,000	135	0	386	6,000	0	0	58,521	
561	27	AFDOL	AERO CONFIGURED HIS	BALC	11.7	78	V. STEWART	1	32.4	24.4	10.1	8.0	0.0	0.0	465	143	2,050	1,408	112	80	1,600	17,000	58	0	166	8,000	0	0	25,224	
565	42	AFATL	F-15 LOADS	BALC	11.8	78	R. ELWELL	1	43.9	27.4	18.4	15.9	0.0	0.6	456	337	2,994	1,232	98	70	1,400	18,000	67	0	193	11,000	0	0	29,260	
563	39	AFDOL	ADV HYPERSONIC	BALC	11.9	78	E. WASHINGTON	1	43.2	30.8	23.7	7.0	0.0	5.4	924	326	4,140	2,024	161	115	2,300	28,520	94	0	269	13,850	0	0	40,733	
560	37	AFDOL	TOP MOUNTED INLET	GRDC	11.9	78	M. KIBER	1	190.8	128.2	81.6	50.2	0.0	12.4	3,319	2,281	7,497	4,224	336	240	4,800	56,000	258	0	739	35,000	0	0	111,997	
559	10	AFATL	AIRCRAFT/WEAPON SEP	DYDC	12.1	78	B. ALLEE	1	51.2	22.1	5.9	19.0	0.0	7.5	498	140	275	6,248	497	355	7,100	82,000	209	0	599	8,000	0	0	90,808	
566	31	AFATL	ILAAIT I	BALC	12.2	78	T. SHADOW	1	71.4	53.0	38.9	15.0	0.0	3.4	1,522	389	5,949	2,640	210	150	3,000	36,000	142	0	406	25,000	0	0	61,548	
563	39	AFDOL	ADV HYPERSONIC	BALC	12.3	78	E. WASHINGTON	1	33.3	20.7	11.8	12.0	0.0	0.6	487	201	2,553	1,003	80	57	1,140	13,140	47	0	136	7,300	0	0	20,624	
570	41	AFATL	F-16 WEAPON SEP	GRDC	1.1	79	J. WRIGHT	1	62.3	28.1	21.1	25.0	0.0	9.2	774	382	3,073	1,443	115	82	1,640	19,200	111	0	320	28,800	0	0	48,431	
570	41	AFATL	F-16 WEAPON SEP	CTSC	1.2	79	J. WRIGHT	1	14.0	13.4	9.7	0.0	0.0	0.6	356	48	2,422	669	53	38	760	8,800	51	0	147	13,200	0	0	22,198	
572	45	ADTC	JP233	GRDC	1.3	79	R. TOLBERT	1	25.0	13.5	8.6	11.5	0.0	1.3	305	307	2,503	871	69	50	990	12,490	56	0	160	11,500	0	0	24,205	
572	45	ADTC	JP233	CTSC	1.4	79	R. TOLBERT	1	39.9	37.0	27.6	0.0	0.0	1.6	967	272	5,074	2,798	223	159	3,180	40,130	178	0	510	36,470	0	0	77,288	
571	38	ADTC	FAE II SEP	CTSC	1.5	79	A. HESKETH	1	39.7	23.2	18.1	16.0	0.0	0.3	567	187	6,385	1,725	137	98	1,960	23,800	104	0	300	21,200	0	0	45,404	
571	38	ADTC	FAE II SEP	GRDC	1.6	79	A. HESKETH	1	11.8	11.8	3.1	0.0	0.0	0.2	101	76	651	299	24	17	340	4,100	18	0	52	3,700	0	0	7,870	
567	32	AFATL	ILAAIT II	BALC	1.7	79	H. KAUPP	1	75.7	52.0	25.3	22.7	0.0	0.7	623	328	4,549	2,728	217	155	3,100	40,000	151	0	433	25,000	0	0	65,584	
576	87	ASD	F-16/AINWJ	CTSC	2.1	79	R. PAULK	1	25.9	10.6	7.5	15.0	0.0	0.2	279	51	1,880	880	70	50	1,000	13,800	56	0	160	19,200	0	0	24,216	
576	87	ASD	F-16/AINWJ	GRDC	2.2	79	R. PAULK	1	0.7	0.7	0.6	0.0	0.0	0.1	22	11	146	88	7	5	100	1,100	4	0	13	800	0	0	1,917	
574	47	ADTC	RK-82	BALC	2.3	79	J. WHORIC	1	49.9	30.3	17.9	17.3	0.0	2.3	693	281	3,827	2,200	175	125	2,500	32,000	135	0	386	26,000	0	0	58,521	
577	88	ASD	F-111/PWVE TACK	CTSC	2.4	79	R. ELWELL	1	58.2	38.6	22.7	14.5	0.0	5.1	816	237	6,457	2,200	175	125	2,500	29,000	137	0	393	30,000	0	0	59,536	
572	45	ADTC	JP233	CTSC	2.5	79	R. TOLBERT	1	13.6	3.6	1.7	10.0	0.0	0.0	64	21	392	176	14	10	200	2,520	11	0	33	2,410	0	0	4,974	
579	48	ADTC	RK-82	DYSC	2.6	79	A. HANSFIELD	1	64.5	16.7	11.8	45.0	0.0	2.8	437	39	593	2,314	184	132	2,630	31,400	115	0	331	18,300	0	0	50,146	
580	02	AFDOL	F-111 DAMAGED	BALC	2.7	79	C. ANDERSON	1	39.5	29.4	10.1	10.0	0.0	0.1	470	212	2,471	1,848	147	105	2,190	26,000	102	0	293	18,000	0	0	44,395	
581	05	ASD	ASALH	BAPC	3.1	79	P. YEAKLEY	1	32.1	12.6	7.2	26.0	0.0	1.5	427	39	539	1,848	147	105	2,100	25,000	95	0	273	16,000	0	0	41,368	
578	48	ADTC	RK-82	MISC	3.2	79	J. COLLINS	1	79.0	45.2	20.5	32.0	0.0	1.8	929	56	300	4,022	320	229	4,570	54,600	200	0	575	31,700	0	0	87,075	
589	05	ARMY	HYPERV ANTI ARMOR	MISC	3.3	79	A. HESKETH	1	49.4	29.2	20.3	18.8	0.0	1.4	700	320	4,130	1,848	147	105	2,100	25,000	118	0	340	26,000	0	0	51,458	
595	00	AEDC	4T IMPROVEMENTS	GRDC	3.4	79	J. CARMAN	1	44.1	21.5	19.1	16.0	0.0	10.6	868	164	12,042	2,103	167	120	2,390	28,300	144	0	412	33,600	0	0	62,456	
592	03	SANSD	AIR-LAUNCH HIM SYS	BALC	4.1	79	E. WASHINGTON	1	133.9	95.5	61.5	23.7	0.0	9.0	2,405	776	12,293	3,696	294	210	4,200	51,000	323	0	926	86,000	0	0	140,248	
582	02	ARMY	BOEING EXP SUB-MIS	BALC	4.2	79	D. CANNILL	1	25.6	10.4	6.1	15.0	0.0	0.2	249	66	1,111	1,408	112	80	1,600	19,000	65	0	186	9,000	0	0	28,251	
585	03	ARMY	BOEING EXP SUB-MIS	GRDC	4.3	79	R. PAULK	1	26.5	13.0	7.0	13.0	0.0	0.5	301	208	1,816	1,760	140	100	2,000	25,000	84	0	240	11,300	0	0	36,322	
587	04	SANSD	F-15/HIMI VEHICLE	GRDC	4.4	79	M. KIBER	1	59.7	42.7	26.2	25.7	0.0	2.0	1,091	333	3,040	2,200	175	125	2,500	30,200	145	0	417	22,900	0	0	63,662	
587	04	SANSD	F-15/HIMI VEHICLE	CTSC	4.5	79	M. KIBER	1	7.1	2.8	1.8	4.1	0.0	2.0	89	10	331	176	14	10	200	2,800	0	0	32	2,100	0	0	4,932	
587	04	SANSD	F-15/HIMI VEHICLE	BALC	4.6	79	M. KIBER	1	29.2	18.1	9.5	8.6	0.0	3.0	465															

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TEST PROJ A.F. SPONSOR	TITLE	TYPE PD	FY	P.E.	ENTR DSM	DOM	ADM	I/R	SCHED	AEDC	MMN	OP	ATP	MANHOURS		COST (\$)										TOTAL*		
														CALSPAN	SUPPORT	DT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER				
590 D0	AEDC	4T IMPROVEMENTS	GRDC	5.3	79	J. WRIGHT	1	2.5	2.5	2.5	0.0	0.0	0.0	183	4	35	273	22	16	310	3,600	100	0	53	4,400	0	0	8,153
597 D6	AFATL	ILAAAT I	BALC	5.4	79	T. SHADOW	1	79.6	42.1	31.7	31.0	0.0	6.5	1,192	221	4,306	2,552	203	145	2,900	37,000	1,000	0	561	47,000	0	0	85,561
599 A1	AEDC	4T IMPROVEMENTS	CTSC	6.1	79	R. TOLBERT	1	49.4	5.4	3.5	44.0	0.0	0.0	133	42	2,292	722	57	41	820	10,400	0	0	97	4,300	0	0	14,797
584 B9	ARMY	SUBMISSILE DISP	BAPC	6.2	79	B. ALLEE	1	78.3	19.9	12.2	25.0	0.0	2.8	436	176	2,199	2,200	175	125	2,500	30,200	400	0	315	17,200	0	0	48,115
584 B9	ARMY	SUBMISSILE DISP	GRDC	6.3	79	B. ALLEE	1	46.6	10.8	7.1	32.0	0.0	2.8	291	135	1,172	1,285	102	73	1,460	17,500	300	0	184	10,100	0	0	28,084
584 B9	ARMY	SUBMISSILE DISP	CTSC	6.4	79	B. ALLEE	1	20.1	16.9	9.0	0.2	0.0	2.8	379	202	6,189	1,619	129	92	1,840	22,300	300	0	233	12,700	0	0	35,533
600 D9	AFFDL	FORWARD SWEPT WING	BALC	6.5	79	P. YEAKLEY	1	30.3	20.6	9.6	8.5	0.0	1.2	543	253	1,198	1,496	119	85	1,700	21,000	0	0	271	20,000	0	0	41,271
602 D7	AFATL	ILAAAT II	BALC	6.6	79	M. KAUPP	1	63.6	34.5	22.4	21.0	0.0	8.1	1,012	209	2,686	2,376	189	135	2,700	36,000	0	0	488	38,000	0	0	74,488
604 A3	AEDC	AERO HYSTERESIS	BAPC	6.7	79	J. HERMAN	1	48.3	26.0	22.1	31.0	0.0	1.4	881	65	1,161	2,552	203	145	2,900	36,400	1,400	0	461	32,100	0	0	70,361
604 A3	AEDC	AERO DYSTIE	BALC	7.1	79	M. KAUPP	1	29.7	15.4	8.9	11.0	0.0	4.2	364	77	1,191	968	77	55	1,100	14,600	600	0	185	12,900	0	0	28,285
598 B6	ADTC	F-16/JP233	GRDC	7.2	79	A. HESKETH	1	36.3	6.2	2.6	13.0	0.0	0.8	112	58	476	326	26	19	370	4,400	0	0	51	3,300	0	0	7,751
598 B6	ADTC	F-16/JP233	CTSC	7.3	79	A. HESKETH	1	26.2	21.6	16.4	20.0	0.0	0.9	551	161	6,482	2,050	163	117	2,330	27,400	0	0	317	20,600	0	0	48,317
596 B1	ADTC	NSER COEFFICIENTS	CTSC	7.4	79	R. PAULK	1	65.7	37.1	29.7	24.9	0.0	2.8	1,003	155	6,177	1,910	152	109	2,170	28,000	0	0	435	37,900	0	0	66,335
603 B3	ADTC	NSER COEFFICIENTS	GRDC	7.5	79	R. PAULK	1	28.4	23.3	18.1	3.2	0.0	2.8	625	565	4,125	1,170	93	67	1,530	17,000	0	0	284	23,000	0	0	40,284
588 B2	ADTC	NSER FREESTREAM	BALC	7.7	79	R. HEIM	1	36.9	29.4	18.4	5.5	0.0	2.0	694	364	3,819	1,672	133	95	1,900	25,000	0	0	337	26,000	0	0	51,337
601 D1	ADTC	JP233 LOADS	BALC	8.1	79	D. VOPE	1	70.6	41.9	23.2	25.0	0.0	3.7	885	497	3,807	1,848	147	105	2,100	39,000	0	0	482	34,000	0	0	73,482
610 E8	AFFDL	TOP MOUNTED INLET	PRSC	8.2	79	M. KIBER	1	60.5	29.6	16.7	27.7	0.0	3.2	840	118	376	1,496	119	85	1,700	22,000	1,000	0	356	31,000	0	0	54,356
606 B0	NAVY	F-18	GRDC	8.3	79	R. TOLBERT	1	70.9	47.3	32.2	14.3	0.0	8.0	1,219	766	6,682	1,760	160	100	2,000	25,200	0	0	468	45,700	0	0	71,368
606 B0	NAVY	F-18	CTSC	8.4	79	R. TOLBERT	1	73.8	56.5	35.4	10.6	0.0	8.0	1,326	329	9,056	1,936	154	110	2,200	27,800	0	0	515	50,200	0	0	78,515
614 F3	SAMSO	MINI VEHICLE 1:	BALC	8.5	79	P. YEAKLEY	1	99.7	70.7	34.7	18.7	0.0	9.8	1,900	301	3,572	3,168	252	180	3,600	46,000	2,000	0	772	69,000	0	0	117,772
583 C6	AFATL	F-15 FLOWFIELD	GRDC	9.1	79	M. KIBER	1	65.8	34.1	38.1	22.0	0.0	9.7	1,409	1,501	8,317	2,200	175	125	2,500	32,000	1,000	0	554	51,000	0	0	84,554
612 E9	AFFDL	ADV HYPERSONIC	BALC	9.2	79	D. CAMILL	1	38.9	26.9	18.6	12.0	0.0	0.0	705	222	3,185	1,584	126	90	1,800	25,000	0	0	363	30,000	0	0	55,363
615 C9	AFMAL	HUGHES DUCT ROCKET	BALC	9.3	79	J. MORIC	1	76.3	56.6	27.3	21.7	0.0	0.0	1,430	334	3,802	2,992	338	170	3,400	48,000	1,000	0	667	52,000	0	0	101,667
593 C4	AFATL	F-111 LOADS	BALC	9.4	79	C. ANDERSON	1	76.2	58.2	33.4	15.0	0.0	3.0	1,430	501	6,627	4,928	392	280	5,600	73,000	2,000	0	884	59,000	0	0	134,884
611 E6	AFATL	F-16 STORE SEP	GRDC	9.5	79	A. HESKETH	1	48.5	23.9	14.7	22.9	0.0	8.5	608	295	2,430	1,496	119	85	1,700	23,000	0	0	295	21,700	0	0	44,995
619 F3	ARMY	SUBMISSILE DISP	GRDC	10.1	79	C. LAWRENCE	1	21.8	10.5	4.5	11.0	0.0	0.2	256	59	1,032	1,012	81	58	1,150	15,000	0	0	163	9,700	0	0	24,563
619 F3	ARMY	SUBMISSILE DISP	CTSC	10.2	79	C. LAWRENCE	1	1.4	1.3	0.6	0.0	0.0	0.2	33	6	132	132	11	8	150	1,800	0	0	20	1,200	0	0	3,020
618 E5	ADTC	ANRAAM	CTSC	10.3	79	R. PAULK	1	27.8	4.3	3.1	23.5	0.0	1.3	123	13	432	396	32	23	450	5,700	0	0	77	6,000	0	0	11,777
612 E5	ADTC	ANRAAM	BALC	10.4	79	R. PAULK	1	92.3	44.1	16.0	46.5	0.0	1.4	791	141	1,214	2,024	161	115	2,300	29,500	0	0	396	30,500	0	0	60,396
613 E2	AFATL	A-10 PYLON VERIF.	GRDC	10.5	79	B. ALLEE	1	72.8	31.0	11.1	40.0	0.0	0.7	523	213	1,948	1,936	154	110	2,200	28,400	700	0	309	16,400	0	0	45,606
613 E2	AFATL	A-10 PYLON VERIF.	CTSC	10.6	79	B. ALLEE	1	5.0	6.0	2.6	0.0	0.0	0.8	97	11	818	458	36	26	520	5,700	200	0	71	3,500	0	0	10,771
624 A1	AEDC	4T IMPROVEMENTS	GRDC	10.7	79	C. LAWRENCE	1	24.7	7.7	4.6	17.0	0.0	0.0	147	44	218	950	76	54	1,080	13,400	0	0	125	5,600	0	0	19,125
617 E4	ADTC	ANRAAM	GRDC	10.8	79	J. WRIGHT	1	155.3	72.2	53.7	48.6	0.0	3.9	2,159	1,009	9,173	4,761	379	271	5,410	73,000	0	0	1,076	90,000	0	0	164,076
616 E4	ADTC	ANRAAM	CTSC	11.1	79	J. WRIGHT	1	6.5	2.8	2.4	2.0	0.0	4.0	94	16	518	211	17	12	240	3,200	0	0	46	3,800	0	0	7,346
616 E4	ADTC	ANRAAM	BALC	11.2	79	T. SHADOW	1	91.0	33.2	23.3	53.1	0.0	5.0	1,045	339	3,722	2,068	165	118	2,350	30,700	0	0	460	39,000	0	0	70,160
622 F7	ADTC	ANRAAM	BALC	11.3	79	E. WASHINGTON	1	119.1	93.6	53.6	25.5	0.0	3.0	2,549	538	10,144	3,520	280	200	4,000	52,000	0	0	1,016	102,900	0	0	155,916
620 E0	AFATL	F-16 LOADS	BALC	11.4	79	B. GOMILLION	1	45.3	30.6	16.7	13.0	0.0	1.7	707	321	3,533	1,690	134	96	1,920	24,230	1,000	0	342	25,660	0	0	52,232
621 F9	AFFDL	AMECS 1:	GRDC	11.5	79	D. VOPE	1	91.9	20.3	62.9	38.3	0.0	1.2	2,829	3,314	24,097	4,312	343	245	4,900	64,000	0	0	1,168	113,000	0	0	178,168
621 F9	AFFDL	AMECS 1:	BAPC	11.6	79	D. VOPE	1	25.2	6.2	3.9	18.0	0.0	3.5	276	26	219	264	21	15	300	4,000	0	0	73	7,000	0	0	11,073
626 F6	ADTC	ANRAAM	GRDC	12.1	79	R. TOLBERT	1	40.3	27.0	14.2	21.8	0.0	0.9	694	297	2,628	1,918	153	109	2,180	24,200	0	0	335	26,600	0	0	51,135
618 E5	ADTC	ANRAAM	GRDC	12.2	79	R. PAULK	1	61.8	31.1	23.6	26.6	0.0	4.1	1,166	778	9,067	3,036	242	173	3,450	43,700	0	0	587	45,300	0	0	89,587
629 F6	ADTC	ANRAAM	BALC	12.3	79	R. TOLBERT	1	60.8	23.2	9.1	27.3	0.0	0.9	481	140	926	1,250	99	71	1,420	15,700	0	0	216	17,300	0	0	32,216
613 E2	AFATL	A-10 PYLON VERIF.	DYDC	12.4	79	B. ALLEE	1	38.0	12.7	1.9	25.0	0.0	0.3	202	16	16	334	27	19	380	4,900	100	0	86	8,900	0	0	13,286
620 E0	AFATL	F-16 LOADS	BALC	12.5	79	B. GOMILLION	1	66.9	36.1	16.2	23.7	0.0	7.1	769	357	3,892	1,646	131	94	1,870	23,600	0	0	347	29,000	0	0	52,947
627 A9	AEDC	DYN STAB RESEARCH	DYSC	12.6	79	T. SHADOW	1	91.7	53.5	35.6	32.0	0.0	6.2	1,590	79	316	2,344	266	190	3,800	44,000	2,000	0	686	58,000	0	0	104,686
627 A9	AEDC	DYN STAB RESEARCH	DYSC	1.1	80	F. CYFAN	1	24.9	22.7	14.0	2.0	0.0	0.2	560	36	200	1,760	140	109	2,000	25,000	1,000	0	449	25,000	5,130	0	57,579
623 A7	AEDC	ADAPTIVE WALLS	BAPC	1.2	80	D. CAMILL	1	133.2	50.2	47.8	56.6	0.0	15.3	2,296	723	3,759	5,720	455	325	6,500	84,300	6,000	0	1,173	102,000	11,345	0	204,116

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TEST PROJ A.F. SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTP	DSH	UDH	ADH	I/R	SCHED	AEDC	MMH	DOWNTIME		MANHOURS		COST. (\$)		PSI	ELEC	COMP	OTHER	TOTAL*				
														SP	ATP	CALSPAN	SUPPORT	CT	TOTAL	LABOR	MAT.	TRAV.						
627 FB	ADTC	ANRAAM	BALC	2.1	80	V. STEWART	1	59.6	36.4	19.8	21.0	0.0	1.1	1,070	256	3,926	2,464	196	140	2,800	36,000	1,000	0	607	47,000	8,226	0	92,634
623 FO	AFFDL	TRANS FLOW STORE	GRDC	2.2	80	A. HESKETH	1	97.7	47.8	33.5	31.0	0.0	19.7	1,662	567	10,907	3,142	250	179	3,570	46,400	1,660	0	902	74,660	10,863	0	134,365
623 FO	AFFDL	TRANS FLOW STORE	BALC	2.3	80	A. HESKETH	1	21.0	12.3	6.9	7.9	0.0	0.0	382	54	565	642	51	37	730	9,600	340	0	186	15,450	2,780	0	28,306
639 F2	AFATL	SPER	GRDC	2.4	80	J. CARMAN	1	19.2	4.3	3.6	13.1	0.0	1.0	123	109	1,020	590	47	34	670	9,400	0	0	105	5,000	572	0	15,477
635 F2	AFATL	SPER	CTSC	2.5	80	J. CARMAN	1	5.5	5.3	3.7	0.0	0.0	0.0	130	20	994	730	58	42	630	11,600	0	0	126	6,000	1,198	0	18,924
636 F9	AFATL	DIST LOADS	PRSC	2.6	80	T. SHADON	1	59.6	25.7	25.0	30.0	0.0	3.9	928	109	1,039	2,904	231	165	3,300	43,300	870	0	612	43,300	5,655	0	93,890
640 S6	ADTC	ANRAAM	BALC	3.1	80	D. VORE	1	40.5	16.3	9.7	24.0	0.0	15.6	446	92	1,004	845	67	48	960	13,300	120	0	223	17,390	3,584	0	34,627
639 S6	ADTC	ANRAAM	GRDC	3.2	80	D. VORE	1	71.8	94.1	70.1	20.0	0.0	0.0	1,258	511	6,460	3,546	282	202	4,030	56,900	870	0	900	56,140	21,267	0	136,077
639 S6	ADTC	ANRAAM	CTSC	3.3	80	D. VORE	1	1.3	1.3	0.9	0.0	0.0	0.0	35	21	753	97	8	6	110	1,500	10	0	23	1,560	294	0	3,366
625 S0	SAMSO	MINI VEHICLE	PRSC	3.4	80	J. HERMAN	1	27.3	27.3	0.8	25.6	0.0	0.0	40	2	11	2,200	175	125	2,500	36,000	0	0	269	1,790	6,170	0	44,229
647 G1	ASD	F-15/PEACE FOX	DYSC	3.5	80	R. PAULK	1	37.0	8.0	1.8	28.7	0.0	0.7	159	11	26	396	32	23	450	6,000	0	0	76	4,000	1,808	0	11,884
647 G1	ASD	F-15/PEACE FOX	CTSC	3.6	80	R. PAULK	1	42.3	25.9	9.9	16.0	0.0	0.0	433	89	3,224	2,156	172	123	2,450	33,000	0	0	419	22,000	5,853	0	61,272
648 H2	BMD	F-14/PEDRO RECRUIT	BALC	3.7	80	R. TOLBERT	1	42.3	25.8	14.2	15.2	0.0	1.3	623	488	2,131	1,690	134	96	1,920	24,900	1,130	0	396	28,900	5,631	0	61,157
648 H2	BMD	F-14/PEDRO RECRUIT	CTSC	4.1	80	R. TOLBERT	1	24.0	5.5	6.3	16.8	0.0	3.9	305	58	2,722	748	60	43	850	11,000	500	0	175	12,800	1,243	0	25,718
648 H2	BMD	F-14/PEDRO RECRUIT	GRDC	4.2	80	R. TOLBERT	1	13.1	8.9	4.6	2.0	0.0	0.0	214	35	160	354	44	32	630	8,100	370	0	128	9,360	2,011	0	19,910
625 S0	SAMSO	MINI VEHICLE	PRSC	4.3	80	J. HERMAN	1	27.0	27.0	7.7	16.0	0.0	0.0	280	63	238	871	69	50	990	13,980	0	0	175	12,300	6,102	0	32,757
637 S9	AFATL	DIST LOADS	BALC	4.4	80	T. SHADON	1	29.9	9.1	3.9	18.0	0.0	2.8	178	20	144	440	35	25	500	6,700	140	0	95	6,700	2,057	0	15,691
649 H0	AEDC	4T IMPROVEMENTS	GRDC	4.5	80	D. SMITH	1	48.6	17.1	16.7	29.5	0.0	2.0	754	196	6,593	2,165	172	123	2,460	36,700	0	0	461	33,200	3,865	0	74,226
635 H5	ADTC	MSR LOADS	BALC	4.6	80	D. SMITH	1	44.3	22.2	13.4	14.0	0.0	2.6	540	212	2,584	1,936	154	110	2,200	32,000	0	0	409	25,000	5,017	0	62,426
640 J3	AFATL	F-16 LOADS	BALC	4.7	80	G. GOWILLION	1	32.9	23.7	17.5	2.0	0.0	7.2	762	480	4,386	1,954	155	111	2,226	31,560	1,000	0	492	34,000	5,356	0	72,408
639 J4	ADTC	ANRAAM	BALC	5.1	80	E. WASHINGTON	1	92.5	60.1	33.6	25.7	0.0	6.7	1,613	419	8,391	2,904	231	165	3,300	42,000	2,000	0	812	72,000	13,583	0	130,394
654 H6	AFATL	LOW ALT DISPENSER	BALC	5.2	80	D. HODGES	1	61.2	43.5	21.8	17.0	0.0	0.7	762	410	4,386	2,464	196	140	2,800	38,000	1,000	0	581	42,000	9,831	0	91,412
657 J0	AD	F-16/JP233	GRDC	5.3	80	B. ALLEE	1	18.0	4.0	3.4	11.0	0.0	3.0	128	76	1,292	880	70	50	1,000	15,900	0	0	177	8,000	904	0	24,981
658 J0	AD	F-16/JP233	CTSC	5.4	80	B. ALLEE	1	10.8	3.3	2.5	7.5	0.0	0.0	88	28	1,271	282	22	16	320	4,520	0	0	102	3,930	746	0	9,298
632 G2	SAMSO	MINI VEHICLE	GRDC	5.5	80	E. WASHINGTON	1	60.0	41.8	23.0	11.3	0.0	0.7	878	515	3,937	2,490	198	142	2,830	40,500	760	0	620	45,100	9,447	0	96,427
633 G2	SAMSO	MINI VEHICLE	BALC	6.1	80	E. WASHINGTON	1	47.0	27.7	7.1	19.0	0.0	0.5	438	106	1,226	786	61	44	870	12,500	240	0	191	13,900	6,266	0	33,092
653 H4	NAVY	AV-8B	GRDC	6.2	80	A. HESKETH	1	54.6	29.1	20.8	28.0	0.0	21.0	835	1,071	12,140	1,144	91	65	1,300	17,900	0	0	418	37,800	6,577	0	62,694
653 H4	NAVY	AV-8B STORE SEP	CTSC	6.3	80	A. HESKETH	1	174.2	148.7	108.5	2.0	0.0	0.0	4,420	920	30,366	5,896	469	335	6,700	93,100	0	0	2,176	197,200	33,606	0	326,082
651 G3	SAMSO	MINI VEHICLE	BAPC	6.4	80	R. MEIN	1	84.1	46.7	27.9	27.0	0.0	10.4	1,264	273	3,028	4,048	322	230	4,600	65,000	1,000	0	858	56,000	10,554	0	133,412
646 G4	SAMSO	MINI VEHICLE	BALC	7.1	80	G. GOWILLION	1	114.5	81.8	45.6	27.9	0.0	4.8	1,975	565	9,842	2,992	238	170	3,400	50,000	2,000	0	1,043	88,000	18,487	0	159,530
657 J0	AD	F-16/JP233	GRDC	7.2	80	B. ALLEE	1	19.2	5.0	1.9	14.2	0.0	2.5	100	24	405	211	17	12	240	3,390	0	0	52	4,460	1,130	0	9,032
658 J0	AD	F-16/JP233	CTSC	7.3	80	B. ALLEE	1	21.6	18.1	10.1	1.0	0.0	0.0	454	124	5,300	1,144	91	65	1,300	18,360	0	0	255	20,266	4,091	0	42,965
658 H0	AEDC	4T IMPROVEMENTS	CTSC	7.4	80	J. CARMAN	1	3.3	3.3	3.0	0.0	0.0	0.0	96	9	427	387	31	22	440	6,600	0	0	77	5,000	746	0	12,422
663 J6	NAVY	F-18	GRDC	7.5	80	C. LAWRENCE	1	86.8	57.4	33.4	22.0	0.0	4.7	1,424	752	6,857	2,913	232	166	3,310	47,800	0	0	821	67,600	12,972	0	129,193
663 J6	NAVY	F-18	CTSC	7.6	80	C. LAWRENCE	1	24.3	23.3	13.4	0.0	0.0	3.7	529	123	6,464	1,170	93	67	1,330	19,200	0	0	329	27,130	5,266	0	51,895
630 F6	ADTC	ANRAAM	GRDC	8.1	80	R. TOLBERT	1	92.8	48.0	44.1	31.6	0.0	13.2	1,749	876	13,669	3,256	259	185	3,700	52,000	0	0	1,036	79,000	10,848	0	141,884
639 S6	ADTC	ANRAAM	GRDC	8.2	80	D. VORE	1	87.5	57.7	38.9	23.0	0.0	6.8	1,459	760	9,646	4,400	350	250	5,000	70,600	0	0	896	65,120	13,040	0	149,650
665 K6	AD	MAN/ERAN	BALC	8.3	80	J. WHORIC	1	35.7	19.2	9.7	16.5	0.0	0.0	357	168	2,298	1,672	133	95	1,900	28,000	0	0	317	16,000	4,339	0	46,650
667 J2	AD	F-16/JP233/56-357	BALC	8.4	80	V. STEWART	1	74.4	46.3	19.2	26.0	0.0	2.1	869	501	5,194	2,174	173	124	2,470	34,880	1,000	0	565	38,790	10,464	0	85,680
660 J3	AFATL	F-16 LOADS	BALC	8.5	80	G. GOWILLION	1	11.4	7.5	3.7	3.9	0.0	0.0	167	73	781	422	34	24	480	6,780	0	0	94	7,450	1,695	0	16,019
669 K2	AD	F-16/MSR	BALC	8.6	80	G. GOWILLION	1	33.3	25.8	14.8	2.6	0.0	4.9	635	249	2,899	1,144	91	65	1,300	18,000	1,000	0	330	28,000	5,831	0	53,161
667 J2	AD	F-16/JP233/56-357	BALC	8.7	80	V. STEWART	1	12.0	4.5	2.7	7.5	0.0	0.0	110	53	549	308	25	18	350	4,940	0	0	65	4,910	1,017	0	10,532
668 K5	AEDC	ASTF RAKE CALIB.	PRSC	8.8	80	H. KAUPP	1	21.0	9.3	2.4	11.7	0.0	0.0	115	29	562	1,056	84	60	1,200	19,000	0	0	172	5,000	2,132	0	26,272
656 H7	USAF	FTD MISSILE	DYSC	6.9	80	F. CYRAN	1	93.1	60.3	40.7	61.5	0.0	3.6	1,717	158	583	4,602	366	262	5,230	73,850	0	0	1,119	76,630	13,622	0	165,226
666 J7	AD	WASP-HUGHES	BALC	9.1	80	E. WASHINGTON	1	197.4	118.1	76.0	53.0	0.0	16.3	3,092	967	9,713	6,072	483	345	6,900	101,000	3,000	0	1,729	132,000	26,691	0	270,420
672 K9	ARMY	AVCO SUBMUNITION	BALC	9.2	80	D. HODGES	1	29.7	15.7	8.5	14.0	0.0	0.0	354	149	2,082	1,584	126	90	1,800	26,000	1,000	0	700	26,000	5,375	0	104,075
671 L2	ARMY	AVCO SUBMUNITION	DYSC	9.3	80	E. M																						

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TEST PROJ	A.F.	SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	OSH	UOH	ADM	I/R	SCHED	AEDC	MMH	OP	ATP	MANHOURS				COST (\$)								
																		CALSPAN	SUPPORT	OT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*	
462	J8	ASD	F-16/NATO STORE	GRDC	10.2	80	R. PAULK	1	50.8	33.9	16.4	14.0	0.0	4.7	691	190	2,567	1,954	155	111	2,220	32,000	0	0	490	36,000	7,661	0	76,151	
477	K8	AEDC	4T IMPROVEMENTS	MISC	10.3	80	J. CARMAN	1	115.6	82.1	40.3	36.1	0.0	3.4	1,759	839	29,864	4,312	343	245	4,900	74,000	13,000	0	1,089	78,000	18,555	0	184,644	
462	J8	ASD	F-16/NATO STORE	DYDC	11.1	80	R. PAULK	1	60.2	37.7	10.0	10.0	0.0	2.5	783	96	96	1,188	95	68	1,350	19,500	0	0	298	21,900	8,520	0	50,218	
464	J6	NAVY	F-18	DYDC	11.2	80	C. LAWRENCE	1	39.2	28.4	5.6	10.0	0.0	0.8	436	67	67	493	39	28	560	8,000	0	0	137	11,300	6,418	0	25,856	
481	L5	ASD	F-15/PEACE FOX II	CTSC	11.3	80	R. PAULK	1	41.2	22.2	9.3	19.0	0.0	0.0	479	76	3,376	1,056	84	60	1,200	19,000	1,000	0	310	21,000	5,017	0	46,327	
476	K3	ASD	CNCA FLOWFIELD	GRDC	11.4	80	A. HESKETH	1	116.7	60.4	31.2	55.0	0.0	1.3	1,401	562	10,530	4,488	357	255	5,100	76,000	1,000	0	1,049	62,000	13,650	0	153,700	
478	L0	AD	F-16/MASP	BALC	11.5	80	G. SOMILLION	1	42.1	23.5	10.9	18.0	0.0	0.6	636	248	2,110	2,816	224	160	3,200	40,000	0	0	508	30,000	5,311	0	75,819	
482	L8	AD	MASP-BOEING	BALC	11.6	80	G. SOMILLION	1	5.2	3.4	2.3	1.8	0.0	0.0	96	45	426	352	28	20	400	5,000	0	0	73	4,000	768	0	9,841	
478	H0	AEDC	4T IMPROVEMENTS	BALC	11.7	80	G. SOMILLION	1	10.3	5.0	3.5	5.3	0.0	0.0	132	56	479	440	35	25	500	7,700	0	0	96	6,900	1,130	0	15,826	
438	H0	USAF	FTD MISSILE	DYSC	11.8	80	M. CHANEY	1	38.7	42.3	31.3	30.0	0.0	3.7	1,253	72	412	5,368	427	305	6,100	88,000	1,000	0	1,109	56,000	9,560	0	155,669	
456	H7	USAF	FTD MISSILE	DYSC	12.1	80	F. CYRAN	1	55.8	20.5	12.3	23.5	0.0	11.8	505	35	189	1,390	111	79	1,580	23,310	0	0	303	22,540	4,633	0	50,786	
408	67	USAF	AERO MISSILE	BALC	12.2	80	C. ANDERSON	1	73.6	35.8	22.7	23.1	0.0	14.7	923	352	5,286	2,992	238	170	3,400	51,000	2,000	0	627	41,000	8,091	0	102,718	
473	L3	AEDC	4T IMPROVEMENTS	CTSC	12.3	80	R. TOLBERT	1	61.0	7.0	4.3	54.0	0.0	7.9	161	24	854	3,872	308	220	4,400	68,000	0	0	495	7,000	1,582	0	77,077	
480	J9	ADTC	ANRAH	BALC	12.3	80	D. VORE	1	43.4	30.7	14.6	30.3	0.0	0.0	716	227	2,052	1,760	140	100	2,800	29,500	700	0	380	27,100	6,938	0	64,619	
479	J9	ADTC	ANRAH	GRDC	12.4	80	D. VORE	1	72.3	34.2	27.9	32.6	0.0	3.0	1,042	378	3,085	3,344	266	190	3,800	56,500	1,300	0	728	51,900	7,729	0	118,158	
487	L9	C278	AD	MASP FREESTREAM	BALC	1.2	81	D. SMITH	1	43.4	24.5	13.8	16.3	0.0	2.6	687	158	3,259	1,720	160	110	1,990	29,000	1,000	0	429	35,000	3,036	0	88,465
483	10	C355	AEDC	4T IMPROVEMENTS	GRDC	2.1	81	J. CARMAN	1	32.3	9.7	6.9	21.1	0.0	1.5	323	73	586	1,100	650	410	2,160	32,000	0	0	304	14,000	2,148	0	48,452
442	66	C131	ADTC	ANRAH	BALC	2.2	81	V. STEWART	1	62.2	26.1	9.3	36.1	0.0	0.0	381	103	1,082	8,010	1,550	1,250	10,810	162,000	0	0	1,201	20,000	8,499	0	191,701
495	L0	C001	AD	F-16/MASP/SBU LOADS	BALC	2.3	81	G. SOMILLION	1	83.2	37.7	28.6	35.0	0.0	10.5	1,117	547	5,654	5,920	440	630	7,190	104,000	2,000	0	1,082	58,000	7,659	0	172,741
484	H1	C002	ARMY	PLRS	PRSC	2.4	81	D. HODGES	1	37.4	20.4	10.1	17.0	0.0	0.0	468	153	569	1,910	240	60	2,210	31,000	1,000	0	370	24,000	2,615	0	58,985
485	M0	C003	AFATL	DISCO VERIF.	BALC	2.5	81	H. KAUPP	1	81.4	21.1	6.5	51.1	0.0	5.0	378	118	1,397	1,810	180	70	2,160	32,800	600	0	327	16,100	2,812	0	52,138
485	M0	C003	AFATL	DISCO VERIF.	GRDC	2.6	81	B. ALLEE	1	77.6	16.0	8.0	69.0	0.0	4.9	388	211	2,016	2,220	220	200	2,640	40,400	700	0	402	19,800	2,344	0	64,146
485	M0	C003	AFATL	DISCO VERIF.	CTSC	2.7	81	B. ALLEE	1	22.6	15.5	7.7	7.1	0.0	1.9	324	15	57	2,140	210	200	2,550	38,800	700	0	387	19,100	2,737	0	61,723
494	X1	C005	AEDC	4T IMPROVEMENTS	DYSC	3.1	81	S. COULTER	1	104.3	27.4	22.2	74.8	0.0	2.1	811	50	955	3,570	1,900	590	6,660	88,000	4,000	0	884	42,900	6,258	0	141,142
479	L1	C004	AD	MASP-BOEING	GRDC	3.2	81	C. LAWRENCE	1	49.4	17.8	12.1	28.6	0.0	3.3	467	196	2,898	1,720	230	330	2,280	35,300	700	0	409	25,900	2,891	0	55,199
499	L1	C004	AD	MASP-BOEING	BALC	3.3	81	C. LAWRENCE	1	27.0	12.5	4.7	12.2	0.0	2.0	231	99	667	670	90	130	990	13,700	300	0	150	10,100	1,125	0	25,385
498	M5	C007	AFATL	DIST LOADS	BALC	3.4	81	C. CAHILL	1	17.2	5.8	3.9	9.7	0.0	1.7	163	42	423	1,130	60	10	1,200	20,500	0	0	192	8,600	1,359	0	30,651
484	L7	C006	AEDC	AERO DATA CORR	BALC	3.5	81	J. WHORIC	1	15.5	3.5	1.4	12.0	0.0	0.0	60	25	433	870	50	30	950	13,000	0	0	106	3,000	747	0	16,853
472	M8	C008	AEDC	MISSILE/STING INTERF	DYSC	3.6	81	T. BUCHANAN	1	47.5	25.0	16.5	22.1	0.0	0.3	652	39	120	1,080	950	120	2,150	37,100	1,400	0	508	38,500	3,596	0	81,104
492	21	C008	AEDC	MISSILE/STING INTERF	DYSC	4.1	81	F. CYRAN	1	19.0	15.0	7.1	4.0	0.0	0.0	361	37	112	1,230	60	80	1,370	15,900	600	0	218	16,500	1,541	0	34,759
491	14	C009	BND	CBM	BAPC	4.2	81	T. SHADOW	1	100.5	85.5	26.6	13.0	0.0	2.0	1,273	541	6,545	3,660	320	40	4,020	57,600	0	0	842	70,000	5,959	0	134,461
497	26	C010	AD	CNCA FLOWFIELD	GRDC	4.3	81	A. HESKETH	1	152.9	98.0	46.3	46.0	0.0	4.9	1,870	494	7,765	5,990	170	130	6,290	90,500	0	0	1,327	110,500	9,391	0	211,819
497	26	C010	ASD	CNCA FLOWFIELD	BAPC	4.4	81	A. HESKETH	1	29.5	18.5	2.3	2.0	0.0	4.0	199	25	125	300	10	10	320	4,500	0	0	66	5,500	467	0	10,533
493	09	C011	AD	F-111/SBU-12	GRDC	5.1	81	M. KIBER	1	40.8	11.3	5.7	27.0	0.0	2.5	254	89	660	1,400	280	290	1,970	30,200	0	0	293	14,200	2,073	0	46,767
700	15	C012	BND	CBM INLET	MISC	5.2	81	R. WEIN	1	179.7	95.1	31.8	122.7	0.0	1.9	964	177	1,179	5,400	1,350	100	6,850	97,900	0	0	1,012	55,500	7,164	0	161,576
703	33	C118	AFMIL	HUGHES DUCT POCKET	BALC	5.3	81	R. TOLBERT	1	53.7	22.3	8.8	30.8	0.0	4.4	506	128	1,107	1,120	80	20	1,220	17,500	500	0	256	20,800	1,812	0	40,868
701	19	C013	AD	LOW LEVEL DELIVERY	CTSC	6.1	81	J. CARMAN	1	13.4	6.6	6.0	5.0	0.0	1.3	214	20	899	550	20	10	580	9,200	600	0	145	12,200	1,027	0	23,173
701	19	C013	AD	LOW LEVEL DELIVERY	GRDC	6.2	81	J. CARMAN	1	61.2	32.4	22.8	28.0	0.0	1.3	820	1,823	11,500	2,070	80	40	2,190	35,000	2,400	0	554	46,500	3,918	0	88,372
706	33	C118	AFMIL	HUGHES DUCT ROCKET	GRDC	6.3	81	P. TOLBERT	1	55.4	27.7	23.9	20.0	0.0	4.0	972	505	7,650	3,030	210	40	3,280	47,600	1,500	0	697	56,500	4,932	0	111,228
707	36	C121	AEDC	MURIDITY STUDY	GRDC	6.4	81	P. MASSENSILL	1	31.8	14.1	9.0	17.7	0.0	2.4	453	83	890	1,785	5	10	1,800	24,500	300	0	343	27,240	2,430	0	54,814
707	36	C121	AEDC	MURIDITY STUDY	CTSC	6.5	81	P. MASSENSILL	1	16.3	8.5	8.1	3.0	0.0	2.4	327	48	1,877	2,000	10	10	1,630	22,180	700	0	281	19,660	1,987	0	44,807
709	18	C135	AEDC	4T TUNNEL CALIB	MISC	6.6	81	C. ANDERSON	1	72.0	10.0	6.7	62.0	0.0	0.0	260	112	610	3,570	190	10	3,770	60,600	0	0	498	14,450	3,526	0	79,524
704	27	C123	AD	30MM GUN POD	CTSC	7.1	81	V. STEWART	1	50.3	10.4	8.2	31.2	0.0	1.6	318	101	2,551	1,400	250	30	1,680	23,400	600	0	295	18,700	2,087	0	47,983
704	27	C123	AD	30MM GUN POD	GRDC	7.2	81	C. LAWRENCE	1	9.6	7.1	5.3	2.0	0.0	1.6	177	174	1,624	910	170	20	1,100	16,400	400	0	190	12,050	1,345	0	30,335
708	23	C122	NAVY	AV-8B STORE SEP	CTSC	7.3	81	B. ALLEE	1	116.3	73.5	61.1	28.0	0.0	10.2															

# 4T TEST STATISTICS DATA BASE

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TEST PROJ A.F. SPONSOR	TITLE	TYPE PD	FY	P.E.	ENTR OSH	UDH	ADM	I/R	DOWNTIME		MANHOURS				COST \$.													
									SCHED	AEDC	MMH	OF	ATP	CALSPAN	SUPPORT	GT	TOTAL	LABOR	MAT.	TRAV.	FSI	ELEC	COMP	OTHER	TOTAL*			
702 27 C123 AD	JOHN GUN POD	BALC	8.3	81	V. STEWART	1	77.5	39.6	27.7	29.9	0.0	8.0	892	436	4,232	4,730	850	100	5,680	85,800	2,000	0	995	53,100	7,047	0	158,943	
712 10 C532 AFATL	F-4 WEAP ADAPT	BALC	9.1	81	R. MEIN	1	16.4	12.9	7.8	2.4	0.0	1.1	280	183	2,044	890	80	20	990	15,900	0	0	232	19,300	1,644	0	37,076	
690 18 C015 AEDC	F-111 LOADS	BALC	9.2	81	C. ANDERSON	1	31.0	13.2	6.9	17.3	0.0	0.5	294	99	1,065	1,970	220	10	2,200	33,100	0	0	355	33,260	2,489	0	56,141	
707 36 C121 AEDC	HUMIDITY STUDY	BRDC	9.3	81	P. MASSENGILL	1	23.4	5.4	3.5	18.0	0.0	0.5	101	45	482	605	5	10	700	9,530	200	0	154	6,070	738	0	16,642	
707 36 C121 AEDC	HUMIDITY STUDY	CTSC	9.4	81	P. MASSENGILL	1	14.9	6.3	5.4	7.7	0.0	0.4	193	16	626	1,060	10	10	1,080	14,700	200	0	175	11,050	1,238	0	27,912	
713 22 C281 AEDC	4T IMPROVEMENTS	NISC	11.1	81	C. LAWRENCE	1	3.7	3.7	3.7	0.0	0.0	0.0	60	0	0	670	800	30	1,500	24,000	1,000	0	198	5,000	1,401	0	31,599	
713 1E C527 NAVY	F-18 STORE SEP	DYDC	11.2	81	C. LAWRENCE	1	20.0	11.6	2.3	8.2	0.0	0.1	124	30	30	480	10	10	500	8,600	0	0	95	5,800	672	0	15,168	
713 1E C527 NAVY	F-18 STORE SEP	BRDC	11.3	81	D. HILL	1	35.3	18.3	12.2	17.0	0.0	0.1	428	609	3,362	2,560	40	40	2,640	45,500	0	0	504	34,900	3,568	0	80,472	
714 1E C527 NAVY	F-18 STORE SEP	CTSC	11.4	81	R. TOLBERT	1	12.9	8.9	6.5	4.0	0.0	0.0	215	97	1,435	1,360	20	30	1,410	24,300	0	0	249	24,500	1,905	0	42,975	
714 1F C500 AD	F-111 DAMAGED	BALC	11.5	81	C. ANDERSON	1	34.6	13.6	6.7	21.0	0.0	6.7	257	62	759	1,550	30	20	1,600	27,100	0	0	296	17,700	2,092	0	47,189	
689 16 C014 AEDC	ADAPTIVE WALLS	PRSC	11.6	81	D. CAHILL	1	63.6	15.2	12.8	46.0	0.0	2.4	675	56	768	2,910	10	30	2,950	48,300	2,000	0	634	45,800	4,488	0	101,222	
711 1C C381 AFMAL	AMECS	PRSC	12.1	81	J. CARMAN	1	40.0	2.0	2.0	40.0	0.0	5.3	141	21	198	420	60	10	490	8,500	0	0	102	7,000	724	0	16,526	
711 1C C381 AFMAL	AMECS	BRDC	12.2	81	J. CARMAN	1	37.7	16.4	13.4	10.0	0.0	4.0	585	211	3,571	2,580	390	50	3,010	51,800	0	0	622	42,500	4,404	0	99,326	
715 17 C007 AFATL	DIST LOADS	BALC	12.3	81	G. BOWILLION	1	35.7	14.7	7.5	21.0	0.0	0.0	241	91	860	2,160	120	20	2,300	39,500	0	0	365	18,400	2,611	0	58,879	
710 39 C335 AFMAL	FL AERO/RCS	BALC	12.4	81	J. WRIGHT	1	14.5	3.8	2.2	10.0	0.0	0.7	102	14	157	1,840	20	10	1,870	32,000	0	0	264	8,800	1,868	0	42,132	
710 39 C335 AFMAL	FL AERO/RCS	BALC	1.0	82	J. WRIGHT	1	117.9	98.4	36.6	17.0	0.0	2.5	2,368	507	5,577	3,030	200	200	3,250	81,400	0	0	1,687	174,200	11,937	21,138	290,362	
716 1H C599 ASD	F-16/PENGUIN	CTSC	3.1	82	R. PAULK	1	47.5	26.0	17.5	16.0	0.0	3.1	704	166	6,540	2,490	70	50	2,610	46,700	0	0	665	54,100	4,707	0	114,509	
716 1H C599 ASD	F-16/PENGUIN	GRDC	3.2	82	R. PAULK	1	33.0	23.4	15.5	9.0	0.0	3.0	605	165	2,874	2,210	70	40	2,320	36,570	0	0	958	47,900	3,945	4,986	95,958	
718 1P C670 AFATL	F-4 WEAP ADAPT	GRDC	3.3	82	C. LAWRENCE	1	31.6	25.0	9.0	14.0	0.0	1.8	352	143	1,283	1,955	40	20	2,015	35,900	0	0	420	27,750	2,972	3,264	72,306	
718 1P C670 AFATL	F-4 WEAP ADAPT	CTSC	3.4	82	C. LAWRENCE	1	2.0	1.0	0.6	1.0	0.0	1.8	21	8	72	140	0	0	140	2,540	0	0	28	1,660	196	367	4,771	
721 1T C697 ASD	F-16 ECP 9101 SEP	DYDC	5.1	82	N. KIBER	1	76.5	29.0	6.4	22.0	0.0	10.0	392	67	67	2,360	42	52	2,454	41,359	0	0	633	26,256	5,595	1,382	75,225	
721 1T C697 ASD	F-16 ECP 9101 SEP	CTSC	5.2	82	N. KIBER	1	50.1	32.9	7.4	15.6	0.0	10.0	402	86	2,792	2,728	49	60	2,837	47,821	0	0	732	30,359	6,469	1,598	86,979	
721 1T C697 ASD	F-16 ECP 9101 SEP	GRDC	5.3	82	N. KIBER	1	2.5	2.5	0.6	0.0	0.0	7.1	30	7	110	221	4	5	230	3,877	0	0	59	2,462	525	150	7,053	
717 1H C666 AEDC	4T IMPROVEMENTS	NISC	6.1	82	C. ANDERSON	1	41.6	7.6	5.7	34.0	0.0	0.0	184	29	143	3,331	19	3	3,333	61,075	0	0	275	14,171	5,993	1,124	82,638	
723 1V C437 AFATL	F-16/SEEK EAGLE	BALC	6.2	82	G. BOWILLION	1	48.2	17.0	10.5	23.8	0.0	7.4	368	153	1,654	3,568	304	75	3,947	66,330	0	0	121	129,675	20,687	13,742	230,555	
720 1R C676 AFATL	F-4 WEAP ADAPT	BALC	6.3	82	D. HODGES	1	47.6	10.8	10.0	18.8	0.0	18.0	301	110	1,264	3,639	757	219	4,615	76,399	0	0	334	23,321	3,927	1,568	105,549	
726 1J C602 USAF	T-13B	NISC	7.1	82	J. WRIGHT	1	201.2	150.7	50.6	49.2	0.0	1.4	1,952	1,112	15,138	4,579	929	415	5,923	105,702	4,741	0	2,992	134,609	21,474	14,264	283,783	
722 1S C432 AD	INFLUENCE FUNCT	CTSC	7.2	82	P. MASSENGILL	1	24.2	0.2	0.1	22.2	0.0	0.0	4	4	50	15	2	1	18	277	0	0	2	270	63	11	623	
722 1S C432 AD	INFLUENCE FUNCT	GRDC	8.1	82	P. MASSENGILL	1	33.8	32.8	22.5	1.8	0.0	1.0	790	255	4,170	3,267	383	102	3,752	62,152	0	0	48	66,421	14,095	2,442	139,158	
719 18 C590 AD	ALD-131 LOADS	BALC	8.2	82	H. KAUPP	1	58.4	20.5	10.5	37.9	0.0	0.0	414	399	5,426	4,810	2,108	833	7,451	133,044	0	0	1,421	24,279	5,874	2,379	176,997	
730 2C C772 ASD	F-16/JOHN GUN POD	DYDC	8.3	82	R. TOLBERT	1	36.8	20.8	2.3	14.0	0.0	2.0	243	33	33	1,868	41	61	1,970	33,250	0	0	1,335	17,648	1,568	844	54,445	
728 1Y C756 ASD	F-16E STORE SEP	DYDC	8.4	82	R. PAULK	1	38.5	28.5	4.7	20.0	0.0	0.0	270	26	28	739	85	53	877	14,436	94	0	395	12,891	2,044	661	31,521	
728 1Y C756 ASD	F-16E STORE SEP	CTSC	8.5	82	R. PAULK	1	79.9	53.0	20.4	25.0	0.0	2.1	364	474	5,816	3,209	369	229	3,807	62,658	410	0	1,714	60,294	8,873	2,867	136,816	
728 1Y C756 ASD	F-16E STORE SEP	GRDC	9.1	82	R. PAULK	1	51.9	72.0	16.1	17.0	0.0	1.0	947	371	13,232	2,532	292	181	3,905	49,450	324	0	1,352	47,585	7,003	2,263	107,977	
726 1J C602 USAF	T-13B	NISC	9.2	82	J. WRIGHT	1	71.2	59.2	14.1	12.0	0.0	0.0	744	400	5,425	1,580	259	116	1,650	29,454	1,321	0	834	27,510	5,964	3,975	79,078	
732 2A C766 AEDC	4T IMPROVEMENTS	GRDC	9.3	82	D. HILL	1	61.0	4.4	2.0	54.9	0.0	1.7	89	14	374	648	4	13	665	12,268	0	0	2	4,914	1,277	276	18,737	
729 2B C748 ASD	B-1B	GRDC	9.4	82	C. LAWRENCE	1	238.4	195.5	48.8	26.4	0.0	56.5	2,802	1,025	18,180	8,589	200	908	9,697	164,716	0	0	176	206,694	28,438	8,367	402,391	
725 1N C539 ADTC	AMRAAM	GRDC	10.1	82	J. CARMAN	1	122.5	49.8	41.2	46.0	0.0	3.7	1,713	806	14,387	4,963	199	394	5,556	100,350	0	0	32	127,356	18,354	12,248	258,340	
725 1N C539 ADTC	AMRAAM	BALC	10.2	82	J. CARMAN	1	70.3	46.5	17.8	30.0	0.0	8.4	1,082	263	1,853	2,144	86	170	2,400	63,353	0	0	14	55,323	7,930	5,292	111,614	
725 1N C539 ADTC	AMRAAM	CTSC	11.1	82	J. CARMAN	1	1.4	1.4	1.2	0.0	0.0	4.2	39	32	390	145	6	11	162	2,923	0	0	1	3,709	535	357	7,525	
731 2D C776 ASD	F-16 NON-JETT PYLON	DYDC	11.2	82	R. TOLBERT	1	20.0	23.3	3.0	16.9	0.0	1.0	314	41	41	687	26	27	749	12,465	0	0	381	16,605	1,069	627	25,147	
733 26 C794 ASD	F-16 MSIP 9102	DYDC	11.3	82	N. KIBER	1	40.2	36.2	4.7	3.0	0.0	1.0	443	93	104	782	22	36	840	14,358	0	0	509	16,473	2,069	848	34,257	
731 2D C776 ASD	F-16 NON-JETT PYLON	SRDC	11.4	82	P. TOLBERT	1	32.3	3.1	1.6	9.0	0.0	1.0	86	27	717	768	14	14	394	6,648	0	0	247	5,661	570	335	13,412	
731 2D C776 ASD	F-16 NON-JETT PYLON	CTSC	11.5	82	P. TOLBERT	1	25.5	15.9	11.6	7.2	0.0	0.7	403	121	3,145	2,656	101	102	2,859	48,444	0	0	1,473	41,001	4,133	2,426	97,236	
725 1N C539 ADTC	AMRAAM	CTSC	11.6	82	J. CARMAN	1	1.4	1.4	1.2	0.0	0.0	4.2	39	22	753	145	6	11	162	2,923	0	0	1	3,709	535	357	7,525	
727 1X C751 AEDC	TUNNEL FLIGHT CORR	BAPC	12.1	82	D. CAHILL	1	62.9	17.0	9.1	48.0	0.0	3.8	499	42	506	5,529	1,036	16	6,591	114,577	7,694	0	0	892	12,425	6,040	3,875	168,503
732 2A C766 AEDC	4T IMPROVEMENTS	GRDC	12.2	82	D. HILL	1	43.5	6.7	5.1	38.0	0.0	0.8	147	57	655	1,053	10											







## 4T TEST STATISTICS DATA BASE

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603						COUNTLINE										MANHOURS										COST (\$)									
TEST PROJ	A.F.	SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	DSM	UON	ADN	I/R	SCHED	AEDC	MMH	OP	ATP	CALSPAN	SUPPORT	CT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*						
807	34	CE41	NASC	F-1E STORES	CTSC	4.5	86	B. KIBER	1	25.2	18.7	13.1	4.0	0.0	2.5	460	246	4,787	3,497	133	165	3,795	75,851	367	0	2,173	27,072	3,458	14,305	123,227					
808	35	CE42	AFMAL	INTERNAL STORE	CTSC	5.1	86	C. LAWRENCE	1	328.0	134.7	43.6	108.0	0.0	77.3	2,382	560	4,957	7,642	197	484	8,323	167,121	648	0	1,086	116,893	3,335	34,081	323,164					
816	1F	CF83	ASD	F-16 PEACE MARBLE II	CTSC	6.1	86	M. MASSENGILL	1	53.5	16.0	5.6	28.7	0.0	8.8	315	58	1,913	3,020	43	45	3,108	62,135	0	0	158	15,419	1,426	10,561	89,699					
810	38	CE73	AD/YNT	HONEYWELL LDTV	BALC	7.1	86	M. KAUPP	1	61.9	12.9	5.7	48.3	0.0	0.7	243	90	907	3,406	92	16	3,514	76,352	0	0	292	12,094	1,134	11,405	101,277					
817	16	CF83	USAF	FAP-4	MISC	7.2	86	M. GRUBBS	1	41.6	5.6	4.6	36.0	0.0	0.0	234	61	504	2,097	342	42	2,481	49,729	0	0	318	11,545	2,282	8,298	72,172					
815	29	CD97	AFATL	CFD FINNED STORE	PRSC	7.3	86	R. HEIM	1	176.4	33.0	17.0	120.7	0.0	22.7	700	277	1,530	5,083	1,575	193	6,852	142,054	2,267	0	5,306	40,053	3,010	24,470	217,159					
815	29	CD97	AFATL	CFD FINNED STORE	MISC	7.4	86	R. HEIM	1	21.7	19.0	4.3	2.0	0.0	0.7	315	40	120	1,286	399	49	1,733	35,931	574	0	1,342	10,131	761	6,189	54,929					
812	1A	CE77	ARMY	HISAC	CTSC	7.5	86	R. PAULK	1	111.2	51.6	21.5	59.6	0.0	0.0	828	524	7,975	5,323	358	63	5,744	120,085	0	302	439	41,469	5,411	18,066	185,772					
813	39	CE67	NAVY	TRIDENT II	PRSC	8.1	86	M. SELLERS	1	54.5	13.6	7.1	40.9	0.0	0.0	329	257	257	3,564	12	84	3,660	72,374	0	0	699	16,268	1,729	12,143	103,213					
814	1C	CE79	ASD	F-15E HAWKRIK	CTSC	8.2	86	L. COOPER	1	108.0	47.2	31.2	44.0	16.0	0.8	1,265	698	15,229	6,126	112	122	6,360	126,784	40	444	709	63,140	3,745	24,003	218,865					
818	1H	CF24	ASD	F-15 CFT SEPERATION	CTSC	8.3	86	D. ANDERSON	1	213.7	114.6	66.7	99.1	0.0	0.0	2,105	4,874	50,959	6,955	138	250	7,343	148,461	0	275	1,964	107,090	5,983	28,184	291,957					
800	17	CD25	USAF	RCB-109	MISC	9.1	86	P. MASSENGILL	1	486.9	336.6	181.8	96.7	0.0	53.6	5,615	9,720	131,907	11,986	2,346	2,192	16,525	323,496	1,722	669	6,056	305,933	28,683	74,689	741,248					
811	1B	CE75	ASD	F-15E HAWKRIK/LOADS	BALC	10.1	86	D. CAMILL	1	243.8	147.2	55.6	63.7	0.0	32.9	3,396	796	1,977	9,421	524	1,385	11,330	239,598	4,083	0	1,190	165,770	7,829	45,121	463,591					
809	36	CE45	ARMY	106 MILLIMETER FOLD.	BALC	11.1	86	D. HODGES	1	46.9	20.8	7.9	23.9	0.0	2.2	505	84	1,142	3,039	80	61	3,180	67,702	0	0	709	23,000	2,533	12,785	106,729					
821	1P	CF97	AFATL	RING WING MISSILE	BALC	11.2	86	M. GRUBBS	1	79.0	41.3	20.8	36.4	0.0	1.3	834	270	1,560	5,064	243	132	5,439	110,931	0	0	157	41,723	2,932	18,828	174,571					
820	1M	CE82	AFATL	HAVE BASH	BALC	12.1	86	G. SOMILLION	1	103.1	16.1	10.2	82.8	0.0	4.2	457	128	2,234	4,950	183	366	5,499	116,273	0	0	1,404	22,685	2,139	21,581	164,082					
819	31	CE82	AFATL	WEAPON INTERNAL CARRIAGE	MISC	12.2	86	C. LAWRENCE	1	361.6	179.9	85.8	159.5	0.0	22.2	3,456	913	18,095	9,409	3,596	3,634	16,639	345,801	71,202	0	4,422	172,660	8,863	71,464	674,412					
823	1Q	CD88	USAF	T-115	MISC	12.3	86	J. WRIGHT	1	63.4	26.8	22.8	22.5	0.0	14.1	875	0	0	1,543	459	572	2,574	56,817	50	0	175	45,128	2,781	9,872	114,823					

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TEST PROJ A.F. SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	OSH	UDH	ADH	I/R	DOWNTIME		DP	ATP	MANHOURS		COST (\$)	PSI	ELEC	COMP	OTHER	TOTAL						
											SCHED	AEDC			CALSPAN	SUPPORT	ST	TOTAL	LABOR	MAT.	TRAV.							
344 60	SAMSO	MX	PRST	1.1	75	L. BAKER	1	64.0	60.4	37.3	0.0	0.0	3.0	4,709	91	1,630	2,673	363	264	1,300	28,736	1,127	0	398	24,792	0	0	55,433
345 65	AFFDL	B-1 WEAPONS BAY	PRST	1.2	75	J. RIDDELL	1	111.5	97.0	54.1	0.0	0.0	14.5	9,229	418	791	3,807	517	376	4,709	39,009	1,960	0	582	40,009	0	0	50,562
352 90	AEDC	16T IMPROVEMENTS	PRST	1.3	75	F. JACKSON	1	7.5	7.5	6.0	0.0	0.0	0.0	559	14	136	626	95	62	773	10,000	0	0	131	8,000	0	0	18,131
352 81	AFFDL	ONERA CORR	PRST	2.1	75	J. SPURLIN	1	73.0	48.5	25.9	9.5	0.0	12.0	3,798	100	1,400	2,592	352	256	3,290	26,000	0	0	335	20,000	0	0	46,335
346 51	AFFDL	ATV FLOWFIELD	GRDT	2.2	75	J. BLACK	1	176.0	116.9	53.0	40.3	0.0	6.8	4,729	212	2,120	7,938	1,078	784	9,800	80,000	3,000	0	753	48,000	0	0	121,953
350 75	ARMY	155MM ROCKET	NABT	2.3	75	N. WHITE	1	112.0	65.2	46.3	31.8	0.0	6.6	7,127	51	1,142	4,941	671	488	6,100	51,000	1,000	0	815	60,000	0	0	112,815
351 80	AFFDL	AGARD AFTERBODY	NABT	3.1	75	L. GALIGHER	1	79.2	73.6	52.9	0.0	0.0	5.6	5,503	102	1,005	5,589	759	552	6,900	52,000	2,000	0	611	30,000	0	0	84,611
352 90	AEDC	16T IMPROVEMENTS	PRST	3.2	75	F. JACKSON	1	0.8	0.8	0.8	0.0	0.0	0.0	251	1	30	83	11	6	103	2,213	35	0	33	2,350	0	0	4,621
349 62	ADTC	HGBB II	PRST	3.3	75	S. MACLANAHAN	1	48.0	36.4	15.6	11.0	0.0	0.6	1,625	89	1,843	2,754	374	272	3,400	28,000	0	0	313	15,000	0	0	43,313
356 72	AFFDL	I-24C	BALT	3.4	75	F. KEENEY	1	32.0	27.8	17.3	1.8	0.0	2.4	2,338	90	1,112	1,620	220	160	2,000	17,000	0	0	204	11,000	0	0	28,204
354 87	SAMSO	MI	BALT	3.5	75	D. REICHENAU	1	80.0	75.2	50.4	0.0	0.0	3.8	5,382	249	3,330	3,078	418	304	3,800	34,000	2,000	0	487	31,000	0	0	67,487
359 91	ASD	VF-16 A/B	BALT	4.1	75	J. BLACK	1	80.0	72.7	32.9	2.7	0.0	8.2	5,517	124	2,480	4,469	607	441	5,517	47,500	0	0	722	51,690	0	0	99,912
357 92	ASD	VF-16 A/B	BALT	4.2	75	J. SPURLIN	1	64.0	60.2	29.4	0.0	0.0	3.0	3,910	122	2,608	3,168	430	313	3,911	31,670	500	0	515	36,640	0	0	71,325
359 91	ASD	VF-16 A/B	BALT	4.3	75	J. BLACK	1	96.0	84.2	41.7	0.0	0.0	8.2	5,870	184	2,645	4,754	646	470	5,869	50,530	0	0	768	55,000	0	0	106,298
357 92	ASD	VF-16 A/B	BALT	4.4	75	J. SPURLIN	1	64.0	62.5	27.8	0.0	0.0	2.3	3,690	141	2,159	2,995	407	296	3,698	31,840	500	0	487	34,650	0	0	67,477
361 97	AFAPL	EXHAUST NOZZLE	NABT	5.1	75	E. LUCAS	1	51.0	49.3	25.0	0.0	0.0	1.7	3,037	71	911	3,321	451	328	4,100	38,000	0	0	422	20,000	0	0	58,422
365 04	AEDC	16T CALIBRATION	PRST	5.2	75	F. JACKSON	1	32.0	32.0	24.2	0.0	0.0	0.0	3,433	100	599	2,835	385	280	3,500	29,000	0	0	313	13,000	0	0	43,313
344 60	SAMSO	MI	NABT	5.3	75	D. BAKER	1	48.0	46.6	28.9	6.0	0.0	1.4	3,215	68	696	2,025	275	200	2,500	22,264	873	0	308	19,208	0	0	42,653
362 76	AFATL	FNU-110B	BALT	5.4	75	J. COLLINS	1	32.0	15.8	10.4	12.0	0.0	0.2	890	39	434	1,458	198	144	1,800	15,000	0	0	182	10,000	0	0	25,182
358 75	AFFDL	APSI INLET	SIPT	6.1	75	P. LAUER	1	48.0	47.4	31.0	0.0	0.0	0.6	4,439	79	393	2,673	363	264	3,300	27,000	0	0	415	30,000	0	0	57,415
343 63	ASD	B-1 INLET	SIPT	6.2	75	P. LAUER	1	80.0	77.5	52.4	0.0	0.0	2.5	7,845	152	720	1,968	145	105	1,318	11,064	1,742	0	159	9,987	0	0	22,052
370 10	ASD	VF-17	PRST	6.3	75	J. BLACK	1	53.8	36.1	15.1	12.0	0.0	1.7	2,867	47	258	2,673	363	264	3,300	28,000	1,000	0	372	27,000	0	0	52,372
352 90	AEDC	16T IMPROVEMENTS	PRST	6.4	75	F. JACKSON	1	1.2	1.2	1.2	0.0	0.0	0.0	112	3	11	126	17	12	155	1,330	18	0	17	1,950	0	0	2,415
355 88	ADTC	AIR SLEW	NABT	7.1	75	D. PETERS	1	78.8	74.9	44.1	0.0	0.0	2.3	5,182	174	1,408	2,121	288	210	2,619	21,613	254	0	317	77,912	0	0	100,096
355 88	ADTC	AIR SLEW	NIST	7.2	75	D. PETERS	1	16.0	15.3	7.0	0.0	0.0	2.3	823	29	253	316	43	31	390	3,219	38	0	47	11,604	0	0	14,908
368 05	ARMY	HIGH ALPHA AERO	BALT	7.3	75	F. KEENEY	1	64.0	46.7	25.4	12.0	0.0	4.3	2,877	129	3,769	2,754	374	272	3,400	29,000	0	0	429	30,000	0	0	59,429
353 78	AEDC	STALL/POST STALL	NIST	7.4	75	E. LUCAS	1	48.0	47.0	29.6	0.0	0.0	1.0	1,648	55	4,603	2,187	297	216	2,700	24,000	0	0	393	30,000	0	0	54,393
360 94	ARMY	PLUME EFFECTS	NABT	7.5	75	J. RIDDELL	1	32.0	16.0	10.9	12.0	0.0	0.0	1,009	71	1,025	1,076	146	166	1,328	11,526	349	0	125	5,239	0	0	17,225
348 69	ARMY	GYRO CAMARD	NIST	7.6	75	S. MACLANAHAN	1	17.0	5.0	0.4	12.0	0.0	0.0	40	1	9	1,134	154	112	1,400	12,000	1,000	0	97	400	0	0	13,497
372 09	ASD	F-15/AIN-7F	BALT	7.7	75	B. MEYER	1	32.0	19.6	4.9	11.0	0.0	1.4	545	18	81	1,296	176	128	1,600	13,000	0	0	138	6,000	0	0	19,138
374 71	AFFDL	I-24R	PRST	7.8	75	N. SANDERS	1	32.0	32.0	23.0	0.0	0.0	0.0	3,364	74	663	2,401	326	237	2,944	25,520	0	0	415	31,520	0	0	57,455
373 54	AEDC	16T IMPROVEMENTS	PRST	8.1	75	R. LUTZ	1	64.0	51.0	28.2	12.0	0.0	9.0	2,407	118	2,867	2,592	352	255	3,203	27,600	0	0	436	33,000	0	0	60,436
367 02	ASD	ADM-34R (S)	BALT	8.2	75	C. RIDDLE	1	48.0	46.2	19.1	1.6	0.0	0.2	1,487	120	986	2,266	308	224	2,800	24,052	2,122	0	396	28,296	0	0	54,865
367 02	ASD	ADM-34R	PRST	8.3	75	C. RIDDLE	1	16.0	15.9	7.9	0.0	0.0	0.1	614	42	480	972	132	96	1,200	9,948	878	0	164	11,704	0	0	22,694
371 06	AFFDL	B-1 NAB	NABT	8.4	75	E. PRICE	1	112.0	85.0	33.8	20.9	0.0	1.1	4,822	125	507	5,589	759	552	6,900	60,000	3,000	0	851	54,000	0	0	117,851
371 21	AFFDL	B-1 NAB	NABT	9.1	75	E. PRICE	1	80.0	79.3	33.3	0.0	0.0	1.7	2,209	111	533	2,754	374	272	3,400	32,000	0	0	415	25,000	0	0	57,415
364 95	AFATL	FNU-112 GENERATOR	NIST	9.2	75	J. COLLINS	1	16.0	15.7	6.4	0.0	0.0	0.3	562	20	204	1,539	209	152	1,900	16,000	0	0	189	10,000	0	0	26,189
374 71	AFFDL	I-24B	PRST	9.3	75	N. SANDERS	1	32.0	27.5	20.7	3.4	0.0	1.1	3,209	79	315	2,160	293	213	2,667	22,960	407	0	389	30,070	0	0	53,823
375 26	AFFDL	I-24C	BALT	9.4	75	E. WASHINGTON	1	16.0	11.0	5.6	5.0	0.0	0.0	670	31	375	1,134	154	112	1,400	12,000	0	0	138	7,000	0	0	19,138
377 25	AEDC	16T IMPROVEMENTS	PRST	9.5	75	J. CHRISTENSEN	1	32.0	16.0	9.0	12.0	0.0	0.0	1,552	38	282	1,134	154	112	1,400	13,000	0	0	167	10,000	0	0	23,167
347 45	AFFDL	TACT WINGBODY	BALT	9.6	75	F. KEENEY	1	80.0	65.5	28.6	9.8	0.0	4.7	3,720	222	2,715	3,240	440	320	4,000	35,000	0	0	560	42,000	0	0	77,560
381 29	AEDC	RF-4C/10 DES CONE	BALT	10.1	75	R. MEYER	1	64.0	48.3	25.7	11.0	0.0	4.7	2,885	171	2,070	2,511	341	248	3,165	25,000	0	0	407	31,000	0	0	56,407
358 93	AFFDL	ADV TECH WINS	BALT	10.2	75	J. SPURLIN	1	209.0	207.3	69.1	0.0	0.0	0.4	9,635	430	5,519	4,966	646	568	6,600	73,669	1,865	0	1,513	132,419	0	0	209,485
358 93	AFFDL	ADV TECH WINS	PRST	10.3	75	J. SPURLIN	1	16.0	16.0	5.0	0.0	0.0	0.3	697	13	135	486	56	48	600	5,330	135	0	109	9,582	0	0	15,155
366 33	AFATL	ESP SEEYER ANGLE	NIST	10.4	75	J. WALKER	1	48.0	37.6	14.4	10.4	0.0	0.0	1,819	84	1,239	1,503	204	148	1,856	15,988	500	0	244	17,400	0	0	33,764
380 22	ASD	F-16	BALT	10.5	75	N. WHITE	1	175.0	153.7	75.9	12.0	0.0	6.3	8,399	493	9,864	3,895	529	385	4,809	42,744	0	0	851	74,209	0	0	117,804
379 24	ASD	F-16 INLET	SIPT	11.1	75	P. LAUER	1	64.0	59.0	36.9	2.8	0.0	2.1	4,585	193	899	4,673	635	462	5,769	49,357							



## 14T TEST STATISTICS DATA BASE

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ITEMS IN THE DATABASE

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TEST	PROJ	A.F.	SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	OSH	UOH	ADH	I/R	SCHED	AEDC	MMH	DP	ATP	MANHOURS		COST (\$)		CONF	OTHER	TOTAL*					
																			CALSPAN	SUPPORT	OT	TOTAL	LABOR	MAT.	TRAV.	PEI	ELEC			
417	B6		AFFDL	ADV SUPERS CONFIG	BALT	1.5	76.	J. SPURLIN	1	128.0	126.6	57.4	0.0	0.0	1.4	9,031	208	4,502	1,290	990	720	9,000	84,000	2,060	0	1,478	144,700	0	0	232,778
418	F9		AFFDL	FYS X-24C	PRST	2.1	76.	M. ERVIN	1	110.9	100.5	49.4	7.5	0.0	2.6	7,271	119	913	6,804	924	672	8,400	78,400	2,370	0	1,292	96,800	0	0	178,622
419	D2		ASD	B-1 BLAST EFFECTS	PRST	2.2	76.	J. CHRISTENSEN	1	1.1	1.1	1.1	0.0	0.0	0.0	167	17	16	154	21	15	190	1,750	50	0	29	2,150	0	0	3,979
428	B5		ADTC	F-111/GBU-15	BALT	2.3	76.	S. MACLANNAN	1	224.0	193.6	96.0	18.0	0.0	12.4	11,738	793	7,692	13,203	1,793	1,304	16,300	152,360	4,600	0	2,510	188,030	0	0	347,520
419	D2		ASD	B-1 BLAST EFFECTS	NIST	3.1	76.	J. CHRISTENSEN	1	123.0	43.2	19.2	75.0	0.0	4.6	2,307	66	237	154	21	15	190	1,750	50	0	29	2,150	0	0	3,979
419	K0		AEDC	CLEANING RUN	NIST	3.2	76.	J. CHRISTENSEN	1	5.0	5.0	1.0	0.0	0.0	0.0	90	0	0	810	110	80	1,000	9,300	0	0	78	1,440	0	0	10,619
427	H4		NAVY	F-18 INLET	SIPT	3.3	76.	P. LAUER	1	7.0	0.0	0.0	7.0	0.0	0.0	0	0	0	162	22	16	200	2,000	0	0	15	0	0	0	2,015
427	H4		NAVY	F-18 INLET	SIPT	1.1	77	P. LAUER	1	137.0	79.4	46.4	57.0	0.0	0.6	7,047	323	1,309	4,536	616	448	5,600	56,000	1,000	0	1,135	99,000	0	0	157,135
421	B8		ASD	B-1 EJECTION SEAT	BALT	1.2	77	D. REICHENAU	1	80.0	56.5	35.5	22.0	0.0	1.5	3,272	251	3,332	3,564	484	352	4,400	43,000	0	0	647	46,000	0	0	89,247
434	K4		AEDC	16T IMPROVEMENTS	NIST	1.3	77	R. LUTZ	1	16.0	16.0	9.5	0.0	0.0	0.0	958	47	1,119	1,296	176	128	1,600	16,000	0	0	294	12,000	0	0	28,294
430	H8		ASD	B-1	BALT	1.4	77	F. KEENEY	1	96.0	90.6	29.5	4.5	0.0	0.9	3,842	193	838	10,854	1,474	1,072	13,400	139,000	1,000	0	1,470	12,000	0	0	203,470
433	J9		AEDC	AEPS	NABT	2.1	77	E. PRICE	1	87.0	61.8	34.2	0.0	0.0	2.2	3,030	87	1,124	3,483	473	344	4,300	43,600	1,000	0	626	42,000	0	0	86,626
436	B5		ADTC	F-111/GBU-15	BALT	2.2	77	S. MACLANNAN	1	96.0	59.2	33.5	26.5	0.0	10.2	4,197	299	2,400	3,078	418	304	3,800	37,000	0	0	698	59,000	0	0	96,698
429	D0		AFFDL	NOT/COLD NOZZ	NABT	2.3	77	C. ROBINSON	1	92.0	80.8	54.5	32.0	0.0	15.2	6,689	92	1,300	8,829	1,199	872	10,900	108,000	10,000	0	1,542	94,000	0	0	213,542
435	L0		AEDC	16T CALIBRATION	NIST	3.1	77	F. JACKSON	1	48.0	30.5	22.6	16.0	0.0	1.5	2,934	161	694	2,916	396	288	3,600	35,160	800	0	548	39,340	0	0	75,848
439	L1		AFFDL	F-111 TACT	BALT	3.2	77	D. BELL	1	48.0	35.6	12.8	11.4	0.0	1.0	1,386	51	1,330	1,628	221	161	2,010	22,540	0	0	302	18,920	0	0	41,762
441	L9		AFFDL	F-111 TACT II	BALT	3.3	77	D. BELL	1	64.0	54.4	26.4	4.3	0.0	5.2	3,996	136	2,607	1,782	242	175	2,200	22,000	0	0	473	43,000	0	0	65,472
440	K7		AFFDL	F-111 TACT I	BALT	4.1	77	R. MEYER	1	112.0	83.2	38.9	0.0	0.0	27.9	4,438	180	2,716	3,143	427	319	3,880	37,330	0	0	736	63,850	0	0	101,936
438	B9		NAVY	F-18	BALT	4.2	77	M. SANDERS	1	272.0	220.2	99.5	34.5	0.0	16.9	13,069	421	4,067	8,829	1,199	872	10,900	112,000	0	0	2,146	183,000	0	0	297,146
442	N1		AEDC	SEP NOZZLE	PRST	5.1	77	J. RIDDELL	1	48.0	31.9	15.2	16.0	0.0	0.1	2,000	100	202	2,916	396	288	3,600	36,000	1,000	0	473	29,000	0	0	65,473
448	N1		AFFDL	F-111 TACT I	PRST	5.2	77	D. BELL	1	80.0	57.3	34.2	22.0	0.0	0.7	4,835	72	886	2,704	367	267	3,338	32,642	742	0	707	63,800	0	0	97,891
448	N1		AFFDL	F-111 TACT I	NIST	5.3	77	D. BELL	1	16.0	14.6	5.6	0.0	0.0	0.7	719	29	152	446	61	44	550	5,345	121	0	116	10,447	0	0	16,025
448	N1		AFFDL	F-111 TACT I	BALT	5.4	77	D. BELL	1	16.0	16.0	6.3	0.0	0.0	0.7	899	21	172	498	68	49	615	6,013	137	0	130	11,753	0	0	18,633
444	F0		AFATL	SUPERS ROCKET LAUN	BALT	5.5	77	E. SMITH	1	64.0	47.2	15.4	14.5	0.0	2.2	1,802	164	3,124	3,483	473	344	4,300	45,000	9,000	0	560	23,000	0	0	77,560
413	F4		ASD	F-16	BALT	6.1	77	M. WHITE	1	48.0	33.4	12.2	13.3	0.0	1.3	1,490	79	1,104	2,041	277	202	2,520	26,670	0	0	334	19,260	0	0	46,264
439	L1		AFFDL	F-111 TACT	BALT	6.2	77	D. BELL	1	64.0	62.7	19.0	0.0	0.0	1.3	2,106	95	1,519	2,422	329	239	2,990	33,460	0	0	448	28,000	0	0	61,968
446	J8		AFFDL	SOFT WING	PRST	6.3	77	S. MACLANNAN	1	9.9	8.0	2.7	1.9	0.0	0.0	374	10	181	1,195	162	119	1,475	14,954	554	0	147	4,708	0	0	20,363
446	L0		AEDC	16T CALIBRATION	NIST	6.4	77	F. JACKSON	1	6.1	6.1	4.4	0.0	0.0	0.0	430	19	171	567	77	56	700	6,840	200	0	107	7,660	0	0	14,807
449	H8		ASD	B-1	PRST	6.5	77	F. KEENEY	1	112.0	98.7	31.2	11.5	0.0	1.8	4,275	115	999	5,605	761	554	6,920	71,800	500	0	1,135	83,680	0	0	157,115
447	H8		AFFDL	F-16 AFTI	BALT	6.6	77	J. COLLINS	1	128.0	106.9	49.1	17.6	0.0	3.5	5,350	200	3,798	3,969	539	392	4,990	50,900	0	0	862	67,660	0	0	119,422
437	E6		AFFDL	HI FLOWFIELD PROBE	GRDY	7.1	77	C. BURCHFIELD	1	80.0	37.2	25.4	24.4	0.0	3.8	2,000	188	1,152	4,455	605	440	5,500	57,000	2,000	0	626	27,000	0	0	89,626
445	H9		AFFDL	WINGBODY FLOWFIELD	GRDY	7.2	77	D. REICHENAU	1	80.0	51.8	23.5	34.6	0.0	8.2	3,000	57	1,548	4,498	638	454	5,800	62,000	2,000	0	735	27,000	0	0	101,735
440	K7		AFFDL	F-15 AFTI	BALT	7.3	77	R. MEYER	1	96.0	76.0	40.3	18.5	0.0	1.5	5,063	176	3,723	3,256	442	322	4,020	38,670	0	0	763	66,150	0	0	105,563
454	N1		AFAL	F-111	DYDT	7.4	77	S. BROWN	1	64.0	53.2	21.0	4.7	0.0	6.1	3,209	108	200	5,103	693	504	6,300	66,000	0	0	736	42,000	0	0	108,736
451	N2		ASD	F-16	BALT	7.5	77	M. WHITE	1	134.7	108.6	61.9	16.0	0.0	10.1	7,312	305	6,379	3,969	539	392	4,900	52,000	0	0	1,069	95,000	0	0	148,569
461	H8		AEDC	16T IMPROVEMENTS	BALT	8.1	77	D. BELL	1	16.0	8.9	5.3	5.8	0.0	1.3	495	41	402	567	77	56	700	9,000	0	0	109	6,000	0	0	15,109
452	K9		AFATL	F-111 MSER	BALT	8.2	77	M. WHITE	1	128.0	109.2	33.7	4.0	0.0	14.8	4,109	241	1,629	5,022	682	496	6,200	63,000	0	0	844	53,000	0	0	116,844
413	F4		ASD	F-16	BALT	8.3	77	M. WHITE	1	61.3	28.9	12.5	11.5	0.0	0.9	1,539	79	1,238	2,090	284	206	2,580	27,330	0	0	342	19,740	0	0	47,412
455	N3		AFFDL	F-111 AFTI WAB	NABT	8.4	77	C. BURCHFIELD	1	227.0	115.7	47.9	33.5	0.0	10.8	5,093	227	1,151	6,695	935	680	8,500	90,000	1,000	0	1,142	66,000	0	0	156,142
463	H9		AFATL	2D NOZZLE	NABT	9.1	77	D. BAKER	1	193.0	119.3	46.4	41.5	0.0	14.8	5,421	193	1,132	6,642	902	656	8,200	94,000	2,000	0	1,208	70,000	0	0	167,208
460	N7		NAVY	F-18 INLET	SIPT	9.2	77	J. WALKER	1	129.0	87.6	51.2	32.0	0.0	8.4	7,470	191	955	7,128	968	704	8,800	93,000	1,000	0	1,389	57,000	0	0	192,389
464	P3		ASD	F-15	BALT	10.1	77	E. MACLEOD	1	96.0	79.5	42.5	9.0	0.0	7.5	3,861	205	1,312	3,078	418	304	3,800	41,000	0	0	662	50,000	0	0	91,662
447	H9		AFFDL	F-16 AFTI	BALT	10.2	77	J. COLLINS	1	64.0	44.2	27.1	16.0	0.0	3.9	2,701	98	2,175	2,187	297	216	2,700	28,100	0	0	476	27,340	0	0	55,516
449	H6		ASD	B-1	PRST	10.3	77	F. KEENEY	1	112.0	87.0	29.2	11.0	0.0	1.8	4,125	98	813	5,249	713	516	6,464	67,200	500	0	1,352	78,320	0	0	147,582
452	H9		AEDC	F-17 WAB	NABT	10.4	77	E. LUCAS	1	321.0	119.7	76.1	35.5	0.0	4.8	10,583	327	1,086	7,599	1,020	742	9,270	107,255	1,626	0					

## 147 TEST STATISTICS DATA BASE

ITEMS IN THE DATABASE  
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TEST	PROJ	A.F.	SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	OSH	UDN	ACH	I/P	SCHED	AEDC	NWH	DP	ATP	DOWNTIME		MANHOURS		COST (\$)										TOTAL
471	LB		AFAPL	YF-17 NAB	PRST	1.1	78	E. LUCAS	1	73.0	71.9	42.0	0.0	0.0	1.1	5,404	197	827	2,106	286	208	2,600	30,000	0	0	771	76,000	0	0	0	0	106,771	
478	RO		NAVY	F-18 INLET	SIPT	1.2	78	J. WALKER	1	176.0	117.6	50.3	39.1	0.0	3.3	7,682	163	989	5,913	803	584	7,300	81,000	0	0	1,375	108,000	0	0	0	0	190,375	
475	P7		ASD	F-16	BALT	1.3	78	M. WHITE	1	80.0	58.2	35.5	16.0	0.0	5.8	4,778	329	2,315	2,511	341	248	3,100	41,000	0	0	766	67,000	0	0	0	0	108,786	
470	P1		NASA	SHUTTLE LAUNCH	PRST	1.4	78	J. BLACK	1	272.0	226.6	128.6	39.3	0.0	6.1	21,427	1,003	4,948	10,206	1,386	1,008	12,600	147,000	2,000	0	3,266	300,000	0	0	0	0	452,266	
476	R2		NAVY	STANDARD MISSILE	BALT	2.1	78	S. BROWN	1	64.0	42.0	28.2	18.6	0.0	3.4	4,957	134	4,129	3,159	429	312	3,900	43,000	1,000	0	822	69,000	0	0	0	0	113,822	
474	H4		AFFDL	B-1 NAB	NABT	2.2	78	D. REICHENAU	1	192.0	114.1	53.2	61.8	0.0	16.1	5,964	367	815	8,100	1,100	800	10,000	114,000	1,000	0	1,440	83,000	0	0	0	0	199,440	
479	R4		AEDC	EJECT SIMULATOR	NABT	3.1	78	D. REICHENAU	1	48.0	43.5	29.6	3.6	0.0	0.9	3,364	138	526	2,916	396	298	3,600	42,000	0	0	647	47,000	0	0	0	0	89,647	
473	P8		AFFDL	ADV NOZZLE	NABT	3.2	78	P. LAUER	1	240.0	184.8	89.5	21.7	0.0	33.5	9,382	566	2,973	9,072	1,232	896	11,200	126,000	0	0	1,877	132,000	0	0	0	0	259,877	
483	OS		AFFDL	F-15 AFTI	BALT	4.1	78	R. MEYER	1	96.0	78.9	41.1	16.0	0.0	1.1	5,015	182	3,603	2,673	363	264	3,300	36,000	0	0	771	70,000	0	0	0	0	106,771	
477	H2		AFAPL	F-16 NAB	NABT	4.2	78	E. PRICE	1	240.0	193.8	112.8	39.7	0.0	6.5	14,673	675	2,181	10,935	1,485	1,080	13,500	155,000	2,000	0	2,633	205,000	0	0	0	0	364,633	
472	R1		AEDC	PRESSURE DRAG	PRST	5.1	78	A. SPRATLEY	1	64.0	42.1	24.6	10.6	0.0	11.3	3,329	88	315	2,592	352	256	3,200	34,000	0	0	582	46,000	0	0	0	0	80,582	
431	67		NASA	SHUTTLE PROBE	PRST	5.2	78	M. WHITE	1	144.0	81.6	53.5	16.0	0.0	46.4	7,532	180	1,965	4,455	605	440	5,300	60,000	1,000	0	1,208	105,000	0	0	0	0	167,208	
484	06		AFFDL	F-16 AFTI	BALT	5.3	78	S. MACLANAHAN	1	108.0	88.4	42.4	18.0	0.0	1.6	4,578	162	3,569	3,483	473	344	4,300	49,000	0	0	822	64,000	0	0	0	0	113,822	
487	10		AEDC	F-15 CADS	BALT	6.1	78	J. SPURLIN	1	114.2	46.1	28.4	43.5	0.0	22.6	2,333	59	6,311	5,994	814	592	7,400	88,000	0	0	880	33,000	0	0	0	0	121,880	
485	22		AEDC	16T IMPROVEMENTS	NIST	6.2	78	F. KEENEY	1	1.8	1.6	1.8	0.0	0.0	0.2	201	19	140	1,288	175	127	1,590	21,090	1,000	0	183	3,090	0	0	0	0	25,363	
488	01		ARMY	SSRS	NABT	6.3	78	D. WEIDUWILT	1	48.0	36.0	17.6	16.0	0.0	12.0	2,637	80	1,154	3,645	495	360	4,500	52,000	0	0	655	38,000	0	0	0	0	90,655	
486	07		ASD	ALCM	BALT	6.4	78	M. SANDERS	1	128.0	111.8	56.9	11.0	0.0	5.2	4,976	300	3,744	4,455	605	440	5,500	64,000	0	0	989	72,000	0	0	0	0	136,989	
491	24		NAVY	STANDARD MISSILE	PRST	7.1	78	S. BROWN	1	26.5	19.0	9.8	7.4	0.0	0.1	1,502	34	509	2,349	319	232	2,900	33,000	1,000	0	407	22,000	0	0	0	0	56,407	
481	AS		AFFDL	C-141 WING	BAPT	7.2	78	J. SPURLIN	1	101.5	94.4	34.3	5.5	0.0	1.6	5,493	173	1,810	4,050	550	400	5,000	57,000	0	0	997	80,000	0	0	0	0	137,997	
495	13		AFFDL	EJECTION SEAT	NIST	7.2	78	M. ERVIN	1	48.0	32.0	10.5	16.0	0.0	0.0	595	77	385	2,997	407	296	3,700	42,000	1,000	0	378	9,000	0	0	0	0	52,378	
492	09		AFAPL	YF-17 NAB	NABT	7.3	78	E. LUCAS	1	96.0	86.5	48.3	5.3	0.0	4.2	4,597	315	986	4,779	649	472	5,900	70,000	12,000	0	1,091	68,000	0	0	0	0	151,091	
496	25		AFAPL	F-16 NAB	NABT	8.1	78	J. RIDDELL	1	154.0	131.0	81.4	15.0	0.0	8.0	12,183	548	1,711	5,613	762	554	6,930	80,530	0	0	1,929	184,430	0	0	0	0	266,908	
497	20		AEDC	TRANSONIC WALL	BAPT	8.2	78	P. LAUER	1	67.0	38.1	17.2	21.0	0.0	7.9	1,993	54	640	3,483	473	344	4,300	49,000	0	0	575	30,000	0	0	0	0	79,575	
493	02		AEDC	16T IMPROVEMENTS	DYST	8.3	78	M. CARLETON	1	112.0	23.0	14.9	80.0	0.0	9.0	1,284	21	253	8,100	1,100	800	10,000	115,000	5,000	0	1,011	19,000	0	0	0	0	140,011	
500	00		AEDC	16T IMPROVEMENTS	NIST	9.1	78	J. REED	1	16.0	14.8	4.6	0.0	0.0	1.2	405	8	123	606	82	60	748	8,672	0	0	83	5,440	0	0	0	0	14,195	
482	08		AFFDL	F-111 2D NOZZLE	NABT	9.2	78	C. BURCHFIELD	1	96.0	0.0	0.0	96.0	0.0	0.0	140	0	0	3,758	510	371	4,640	58,030	13,000	0	532	2,050	0	0	0	0	73,612	
503	29		NAVY	STANDARD MISSILE	BALT	9.3	78	S. BROWN	1	48.0	27.0	13.8	20.5	0.0	0.5	843	109	2,397	2,349	319	232	2,900	34,000	0	0	335	12,000	0	0	0	0	46,335	
499	19		AEDC	16T IMPROVEMENTS	NIST	9.4	78	R. LUTZ	1	32.0	22.2	11.6	9.6	0.0	0.2	1,028	45	746	1,296	176	128	1,600	21,000	0	0	262	15,000	0	0	0	0	36,262	
511	15		AFAPL	LG MSM PH I	NIST	9.5	78	J. WALKER	1	112.0	79.3	45.8	17.6	0.0	15.1	6,498	236	2,852	2,997	407	296	3,700	45,000	0	0	1,062	101,000	0	0	0	0	147,062	
494	25		AFAPL	F-16 NAB	NABT	10.1	78	J. RIDDELL	1	32.0	23.7	12.6	8.2	0.0	0.1	1,848	79	247	867	119	86	1,070	12,470	0	0	299	28,550	0	0	0	0	41,318	
507	24		NASA	ARCEASTISITY	BALT	10.2	78	J. BLACK	1	105.0	66.2	39.9	25.3	0.0	12.5	5,728	342	2,800	3,078	418	304	3,800	46,000	0	0	1,026	95,000	0	0	0	0	142,026	
498	26		NAVY	MALLEVE	BALT	10.3	78	S. MACLANAHAN	1	69.0	40.0	25.6	29.0	0.0	0.0	3,301	219	2,019	3,240	440	320	4,000	39,000	1,000	0	713	59,000	0	0	0	0	98,713	
510	33		ASD	AIRCRAFT AERO	BALT	10.4	78	R. MEYER	1	34.0	24.9	10.8	8.5	0.0	0.6	1,353	79	774	1,782	242	176	2,200	29,000	1,000	0	366	26,000	0	0	0	0	55,366	
506	27		AFAPL	BLAST WAVE	PRST	10.5	78	L. HERRINGTON	1	9.2	5.7	2.5	3.5	0.0	0.0	260	21	59	648	88	64	800	8,000	0	0	67	4,000	0	0	0	0	12,587	
500	00		AEDC	16T IMPROVEMENTS	NIST	10.6	78	J. REED	1	6.8	6.8	5.7	0.0	0.0	0.0	496	11	169	748	102	74	924	10,712	0	0	102	6,720	0	0	0	0	17,534	
482	08		AFFDL	F-111 2D NOZZLE	NABT	10.7	78	C. BURCHFIELD	1	241.5	147.6	54.3	63.5	0.0	30.4	6,132	167	737	9,445	1,283	933	11,660	145,970	34,000	0	2,044	120,950	0	0	0	0	262,964	
500	00		AEDC	16T IMPROVEMENTS	NIST	11.1	78	J. REED	1	2.0	2.0	0.7	0.0	0.0	0.0	56	0	0	107	15	11	132	1,536	0	0	15	960	0	0	0	0	2,505	
489	12		NAVY	F-16L	PRST	12.1	78	J. RIDDELL	1	76.7	55.5	24.6	20.6	0.0	0.6	3,464	94	1,034	3,807	517	376	4,700	57,000	0	0	837	58,000	0	0	0	0	115,837	
485	22		AEDC	16T IMPROVEMENTS	NIST	12.2	78	F. KEENEY	1	3.3	3.3	1.7	0.0	0.0	0.0	171	0	0	1,223	166	121	1,510	19,910	1,000	0	173	2,910	0	0	0	0	23,993	
505	14		AFAPL	EJECTION SEAT	NIST	12.3	78	D. REICHENAU	1	96.0	42.0	21.6	52.0	0.0	2.0	1,526	193	756	3,645	495	360	4,500	55,000	0	0	582	25,000	0	0	0	0	80,582	
517	35		NASA	DATA VERIFICATION	BAPT	12.4	78	J. BLACK	1	79.5	25.8	11.5	40.2	0.0	0.0	1,770	82	464	3,159	429	312	3,900	45,000	1,000	0	546	29,000	0	0	0	0	75,546	
514	39		AFAPL	INLET DYNAMICS	SIPT	12.5	78	S. BROWN	1	96.0	58.7	30.2	34.3	0.0	3.0	3,100	157	680	5,751	781	565	7,100	79,000	4,000	0	975	51,000	0	0	0	0	134,975	
512	31																																





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TEST PROJ A.F. SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTP	OSH	UOH	ADM	I/R	SCHED AEDC	MHH	OP	ATP	CALSPAN	SUPPORT	DT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*		
564 E	AEDC	PRESSURE DRAG	NIST	5.3	80	C. SMITH	1	22.0	20.2	15.4	1.8	0.0	0.0	2,006	51	325	2,754	374	272	3,400	45,000	2,000	0	997	90,000	3,313	0	141,309
551 DE	C358 NASA	E T DOOR	NIST	6.1	80	R. MEYER	1	60.0	27.9	5.3	31.1	0.0	1.0	909	23	199	3,726	506	368	4,600	66,450	4,890	0	813	40,360	4,576	0	117,088
571 ET	ASD	F-16 TAIL	PRST	6.2	80	R. HOBBS	1	70.0	56.0	40.2	10.0	0.0	4.0	5,005	124	2,054	3,240	440	320	4,000	55,000	5,000	0	2,081	226,000	9,184	0	297,265
567 EE	AFFDL	FORWARD SWEPT WING	BAPT	6.3	80	J. NEMCOMB	1	100.0	64.8	47.3	31.5	0.0	3.7	4,313	233	2,785	5,670	770	560	7,000	98,000	5,000	0	2,204	200,000	10,627	0	315,831
570 EG	AFFDL	ASA	BAPT	7.1	80	J. SPURLIN	1	51.5	31.3	23.4	17.6	0.0	2.6	3,044	92	1,408	2,673	363	264	3,300	47,000	3,000	0	1,353	136,000	5,133	0	192,486
551 DE	C358 NASA	E T DOOR	NIST	7.2	80	R. MEYER	1	10.0	7.0	0.8	3.0	0.0	0.0	145	6	51	567	77	56	700	10,030	740	0	123	6,090	1,148	0	18,131
569 E2	AEDC	F-16	BAPT	7.3	80	E. LUCAS	1	76.4	41.3	35.5	30.0	0.0	5.1	4,293	108	1,322	4,678	638	464	5,800	84,000	5,000	0	2,059	194,000	6,773	0	291,832
549 E4	AEDC	16T CALIBRATION	NIST	7.4	80	L. ROBERTSON	1	1.5	1.5	1.5	0.0	0.0	0.0	129	1	10	243	33	24	300	3,960	200	0	87	7,780	246	0	12,273
573 E6	USAF	FORCE TEST, PH I	NIST	7.5	80	P. LAUER	1	144.1	119.5	69.8	18.8	0.0	5.8	6,879	675	11,447	6,804	924	672	8,400	121,000	3,351	0	3,203	316,000	19,598	0	463,153
568 E1	ASD	F-5B	BAPT	8.1	80	H. SANDERS	1	82.1	41.2	32.5	32.1	0.0	8.8	3,648	172	3,169	3,726	506	368	4,600	66,000	4,000	0	1,717	166,000	6,757	0	244,474
574 E7	AFFDL	F-16 AFTI	BALT	9.1	80	R. MEYER	1	65.0	55.5	35.2	5.0	0.0	4.5	4,148	212	4,632	2,430	330	240	3,000	55,000	4,000	0	1,797	188,000	9,102	0	257,899
582 E1	USAF	FORCE TEST, PH II	NIST	9.2	80	P. LAUER	1	108.2	82.5	61.7	22.4	0.0	3.3	7,540	597	10,119	5,508	748	544	6,800	99,000	3,374	0	3,225	341,000	13,530	0	460,130
572 E2	NASA	SMUTTLE 3.5X	BAPT	9.3	80	J. BLACK	1	84.1	52.1	33.1	27.2	0.0	2.8	5,473	155	667	4,860	660	480	6,000	90,000	7,000	0	2,466	242,000	8,544	0	350,011
573 E1	ADTC	ANPAAN (RAYTHEON)	BALT	10.1	80	S. BROWN	1	120.1	74.5	56.8	29.3	0.0	2.8	5,270	1,085	14,587	7,209	979	712	8,900	132,000	5,000	0	2,772	244,000	12,218	0	395,990
579 E4	ASD	F-16/ANPAAN	BALT	10.2	80	S. MACLAUGHLIN	1	30.0	16.0	10.7	13.8	0.0	0.2	1,322	97	1,328	1,863	253	184	2,300	34,000	1,000	0	691	60,000	2,624	0	98,315
578 E7	ASD	F-16 HORIZ/USER	BALT	10.3	80	R. HOBBS	1	183.2	159.0	90.5	11.2	0.0	13.2	11,181	713	14,723	7,452	1,012	736	9,200	132,000	4,893	0	4,677	506,000	26,076	0	673,646
549 E4	AEDC	16T CALIBRATION	NIST	11.1	80	L. ROBERTSON	1	2.8	2.8	1.3	0.0	0.0	0.0	166	0	0	211	29	21	260	3,430	180	0	75	6,750	459	0	10,695
581 E1	BMD	MI SHROUD	BAPT	12.1	80	J. RIDDELL	1	24.0	9.5	7.0	14.0	0.0	0.5	854	38	584	2,511	341	248	3,100	45,000	1,000	0	618	39,000	1,558	0	87,176
551 DE	C358 NASA	E T DOOR	NIST	12.2	80	R. MEYER	1	65.3	31.4	6.9	33.9	0.0	0.0	1,179	42	360	4,860	660	480	6,000	86,520	6,370	0	1,058	52,550	5,150	0	151,648
58C E5	USAF	FORCE TEST, PH III	NIST	12.3	80	P. LAUER	1	137.3	106.3	85.6	22.0	0.0	9.0	10,124	387	5,462	7,938	1,078	784	9,800	142,000	12,000	0	4,452	458,000	17,433	0	633,885
580 E5	C13C BMD	MI	PRST	12.4	80	D. REICHENAU	1	4.0	0.0	0.0	4.0	0.0	0.0	0	0	0	2,511	341	248	3,100	49,000	0	0	356	0	0	0	49,356
585 E5	C13C BMD	MI	BALT	1.1	81	D. REICHENAU	1	24.1	23.8	20.4	19.9	0.0	14.7	2,445	228	2,854	3,000	980	190	4,170	63,900	1,531	0	1,464	135,800	9,009	0	211,704
580 E5	C13C BMD	MI	PRST	1.2	81	D. REICHENAU	1	114.0	34.7	29.1	20.0	0.0	15.0	4,277	222	1,537	4,270	1,390	270	3,930	91,000	2,184	0	2,088	193,800	12,848	0	301,919
576 E5	C218 ASD	F-5E INLET	SIPT	1.3	81	E. MCDILL	1	121.8	100.6	71.4	15.4	0.0	16.8	7,139	399	2,400	6,800	2,480	380	9,660	141,000	3,972	0	3,797	377,000	23,368	0	549,137
551 DE	C358 NASA	E T DOOR	NIST	3.1	81	P. MEYER	1	21.3	16.8	5.3	3.5	0.0	1.0	985	28	370	2,920	110	90	3,120	51,000	890	0	850	65,000	5,233	0	122,973
588 E5	C221 AEDC	TUNNEL/FLIGHT	BAPT	3.2	81	J. SPURLIN	1	51.0	34.4	23.2	15.8	0.0	0.8	2,987	112	1,291	3,450	1,000	250	4,700	69,000	1,710	0	1,635	154,000	10,069	0	236,405
587 E1	C219 AEDC	16T IMPROVEMENTS	NIST	3.3	81	F. JACKSON	1	20.3	8.3	6.3	12.0	0.0	0.0	322	32	929	1,350	200	30	1,580	15,100	288	0	276	22,520	1,592	0	39,860
587 E1	C219 AEDC	16T IMPROVEMENTS	NIST	4.1	81	F. KEENEY	1	31.9	19.7	15.8	12.0	0.0	0.2	1,007	126	3,145	1,690	120	20	1,830	37,900	724	0	692	56,500	4,258	0	100,074
593 E1	C229 AEDC	16T IMPROVEMENTS	NIST	4.2	81	P. STICH	1	4.9	1.6	0.9	3.3	0.0	0.0	38	5	141	230	120	5	355	5,590	96	0	91	6,890	562	0	13,230
584 E1	C222 NASA	FIN PUDDER	NIST	4.3	81	R. HOBBS	1	48.2	37.4	8.8	8.8	0.0	1.6	1,200	22	257	3,930	150	240	4,320	64,000	1,171	0	1,119	88,700	6,888	0	161,879
590 E1	C226 AFMAL	EJECTION SEAT	NIST	5.1	81	P. RIDDLE	1	47.0	17.5	14.4	23.5	0.0	4.2	1,339	104	1,562	3,160	160	550	3,870	60,900	1,250	0	1,195	102,100	7,353	0	172,798
592 E1	C236 ASD	F-16 PENGUIN	PRST	5.2	81	J. BERGMAN	1	41.5	16.3	14.2	14.6	0.0	5.3	1,636	82	607	2,560	100	90	2,750	41,300	1,143	0	1,093	107,800	6,726	0	158,062
592 E1	C239 ASD	F-16 PENGUIN	BALT	5.3	81	J. BERGMAN	1	15.1	14.3	7.4	0.8	0.0	5.3	840	63	940	1,330	50	50	1,430	21,510	596	0	570	56,130	3,505	0	82,360
584 E2	C244 USAF	FORCE TEST, PH IV	NIST	5.4	81	P. LAUER	1	157.0	126.5	71.2	18.6	0.0	11.9	7,559	679	10,493	7,190	1,120	570	9,880	128,200	5,353	0	5,117	569,800	21,455	0	739,957
594 E1	C225 NASA	NASA SEADS	PRST	6.1	81	H. MATT	1	120.5	30.9	36.4	50.4	0.0	29.2	4,792	283	2,041	7,190	160	30	7,380	110,400	3,571	0	3,414	355,300	21,008	0	493,693
597 E1	C229 NASA	EXTERNAL TANK	NIST	6.2	81	P. MEYER	1	22.0	10.7	3.1	10.9	0.0	0.4	403	6	204	2,920	110	90	3,120	50,500	617	0	589	29,900	3,627	0	25,273
595 DE	C221 ASD	F-16 ECP 350 INLET	SIPT	6.3	81	D. WEIDUWILT	1	188.0	76.1	56.4	57.6	0.0	34.3	7,296	559	1,751	9,450	360	120	9,940	150,600	5,308	0	5,074	541,600	31,226	0	733,809
592 E1	C236 ASD	F-16 PENGUIN	BALT	7.1	81	J. BERGMAN	1	101.3	80.7	38.6	14.6	0.0	6.0	4,662	374	5,584	6,950	270	230	7,450	112,190	3,106	0	2,969	292,860	18,272	0	429,398
602 E1	C231 AEDC	16T IMPROVEMENTS	NIST	7.2	81	T. HOLT	1	2.9	2.9	0.5	0.0	0.0	0.0	114	0	0	260	310	10	580	8,810	110	0	105	5,580	549	0	15,255
597 E1	C229 AEDC	16T IMPROVEMENTS	NIST	7.3	81	P. STICH	1	4.0	4.0	2.4	0																	

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TEENS IN THE DATABASE										02-NOV-86										DOWNTIME										MANHOURS										COST (\$)									
TEST PROJ	A.F.	SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	OSM	UOM	ADM	I/R	SCHED	AEDC	MMH	DP	ATP	CALESPAN	SUPPORT	GT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*																				
608	02	C020	NASA	E T DOOR	NIST	11.4	81	R. MEYER	1	10.0	3.5	0.2	6.5	0.0	0.0	13	2	89	1,160	10	39	1,200	17,700	113	0	108	1,000	663	0	15,584																			
596	25	C126	AFMIL	F-111 ADAPTIVE WING	BALT	12.1	81	R. MEYER	1	55.9	29.9	17.7	12.1	0.0	11.5	2,367	125	1,263	3,500	40	69	3,900	58,200	1,791	0	1,712	175,300	10,533	0	247,536																			
611	0A	C598	SD	TITAN HTF	NIST	12.2	81	S. MACLANAHAN	1	15.6	5.2	4.4	10.4	0.0	0.0	629	40	443	2,590	80	46	2,710	43,930	693	0	662	46,400	4,074	0	53,725																			
607	06	C609	ARMY	MARTIN LOAD	BALT	12.3	81	R. RIDDLE	1	34.0	9.1	5.4	23.5	0.0	1.4	710	32	534	3,050	410	76	3,530	57,500	844	0	807	52,600	4,967	0	116,719																			
598	09	C027	AFAMRL	EJECTION SEAT	BALT	12.4	81	F. GUYTON	1	48.0	14.9	8.6	30.5	0.0	2.6	880	41	214	4,050	280	30	4,360	72,500	1,066	0	1,019	66,500	6,270	0	147,355																			
609	01	C613	ARMY	SADARM	NIST	12.5	81	D. REICHENAU	1	59.4	54.3	8.1	5.1	0.0	0.0	675	122	993	2,870	470	200	4,540	74,300	934	0	893	47,500	5,495	0	129,121																			
605	39	C400	AFMIL	LRCS INLET	SIPT	12.6	81	D. WEIDUNILT	1	40.0	0.0	0.0	0.0	0.0	0.0	0	0	0	1,782	242	176	2,200	36,000	276	0	264	0	1,624	0	38,164																			
600	26	C127	AEDC	16T IMPROVEMENTS	NIST	12.6	81	W. CARLETON	1	0.4	0.0	0.3	0.0	0.0	0.4	20	0	0	440	100	5	545	8,370	77	0	73	1,650	452	0	10,622																			
605	39	C400	AFMIL	LRCS INLET	SIPT	1.1	82	D. WEIDUNILT	1	113.8	49.7	34.1	47.7	0.0	16.4	4,154	350	1,148	7,180	440	430	8,050	133,100	3,396	0	3,246	309,700	19,975	29,963	499,380																			
615	0M	C647	USAF	RTD 400	NIST	1.2	82	J. BLACK	1	120.8	83.4	51.4	33.4	0.0	4.0	4,137	453	7,607	5,870	990	340	7,200	118,800	3,367	0	3,219	320,300	19,808	29,712	495,267																			
610	33	C364	USAF	FLIGHT CORRELATION	NIST	1.3	82	P. LAUER	1	148.3	92.8	60.4	53.2	0.0	2.3	4,205	533	8,939	14,490	2,450	820	17,760	300,600	4,845	0	4,631	331,200	28,501	42,752	712,530																			
616	0M	C684	USAF	RTD 401	NIST	3.1	82	J. BLACK	1	179.5	108.4	65.6	58.3	0.0	12.8	4,993	579	5,765	7,780	1,310	450	9,540	155,300	4,279	0	4,090	398,700	25,172	37,758	529,300																			
612	0K	C401	AFMIL	ATTAC	BAPT	4.1	82	R. MEYER	1	91.2	58.8	35.8	25.5	0.0	6.9	2,956	317	2,941	9,712	322	242	10,276	171,797	0	0	197	233,954	27,701	5,964	439,613																			
620	0R	C691	AEDC	16T IMPROVEMENTS	BALT	4.2	82	F. KEENEY	1	4.3	4.3	1.7	0.0	0.0	0.0	198	24	213	1,020	154	13	1,187	21,884	157	0	54	15,516	8,628	1,950	48,189																			
617	0S	C694	AEDC	16T IMPROVEMENTS	BAPT	4.3	82	R. RIDDLE	1	3.9	2.6	2.7	0.0	0.0	1.3	309	10	141	842	1	10	853	14,617	0	0	35	22,015	1,000	545	38,212																			
622	01	C613	ARMY	SADARM II	NIST	4.4	82	D. REICHENAU	1	43.9	17.0	4.5	19.9	0.0	7.0	521	29	755	7,956	592	242	8,790	143,579	36	0	5,829	40,000	6,545	2,862	198,851																			
625	1A	C728	AEDC	16T IMPROVEMENTS	NIST	5.1	82	F. JACKSON	1	3.6	2.8	2.1	0.0	0.0	0.8	182	13	194	1,530	150	30	1,710	28,300	324	0	310	14,000	1,908	2,862	47,795																			
621	0U	C708	ASD	F-16 HSIP	PRST	5.2	82	J. BERGMAN	1	120.2	42.1	28.1	35.0	0.0	8.0	2,978	127	1,416	5,323	17	183	5,523	89,568	0	0	150	244,812	24,349	5,270	364,149																			
621	0U	C708	ASD	F-16 HSIP	BALT	5.3	82	J. BERGMAN	1	36.0	27.3	9.5	8.5	0.0	7.8	964	86	988	1,800	6	62	1,868	30,281	0	0	52	82,765	8,232	1,782	123,112																			
618	0L	C660	AFATL	MODULAR FUSE	NIST	5.4	82	R. HOBBS	1	24.0	3.9	2.2	20.1	0.0	0.0	92	34	190	2,648	338	20	3,006	49,935	0	0	421	8,020	1,740	734	60,850																			
624	0B	C604	USAF	381 INLET I	NIST	5.5	82	P. LAUER	1	96.2	52.4	33.8	41.0	0.0	2.8	2,577	245	2,573	5,853	1,191	527	7,581	129,609	1,625	0	1,339	205,757	15,819	8,427	252,574																			
619	0T	C399	AFMIL	STOL NOZZLE	NAPT	6.1	82	C. SMITH	1	232.7	124.3	39.8	81.3	0.0	27.1	3,502	268	1,539	12,948	156	622	13,726	235,989	202	1,186	490	275,318	31,218	11,342	556,645																			
617	0S	C694	AEDC	16T IMPROVEMENTS	NIST	7.1	82	R. RIDDLE	1	4.6	4.6	4.4	0.0	0.0	0.0	440	33	465	1,371	3	16	1,390	23,821	0	0	57	35,877	1,632	888	62,275																			
613	3B	C392	AFMIL	IR/RCS	NIST	7.2	82	B. PETERS	1	277.0	93.1	53.8	168.0	0.0	15.9	6,088	266	2,114	23,117	5,488	1,924	30,529	530,309	55,817	0	13,698	467,915	37,722	27,762	1,133,253																			
626	1C	C741	ASD	B-18	BAPT	8.1	82	J. SPURLIN	1	129.2	84.4	46.5	33.3	0.0	11.5	5,833	244	2,985	9,338	101	307	9,746	160,608	0	0	172	444,716	24,483	13,935	643,914																			
629	1E	C744	ASD	B-18 INLET	SIPT	8.2	82	R. RIDDLE	1	238.7	109.1	73.4	106.4	0.0	23.2	9,294	372	1,921	17,167	936	917	19,020	326,427	2,256	542	7,055	708,181	28,380	24,806	1,097,647																			
629	31	C362	AEDC	16T CALIBRATION	NIST	9.1	82	M. MILLS	1	4.5	4.5	2.0	0.0	0.0	0.0	109	3	0	150	0	0	150	2,600	89	0	85	9,000	523	785	13,082																			
630	1H	C664	ARMY	LOAD PLANE	NAPT	9.2	82	R. RIDDLE	1	80.7	15.3	10.7	64.2	0.0	1.2	1,197	33	626	5,470	685	103	6,258	104,596	26	0	1,840	89,162	5,038	3,950	294,614																			
638	0R	C691	AEDC	16T IMPROVEMENTS	NIST	10.1	82	F. KEENEY	1	3.3	3.3	3.0	0.0	0.0	0.0	385	21	183	1,800	271	24	2,095	38,620	277	0	95	24,380	15,225	3,442	82,039																			
631	1B	C757	ASD	F-16 NUP	BALT	10.2	82	J. BERGMAN	1	102.3	22.4	17.0	25.0	0.0	30.9	1,809	135	1,237	4,685	60	233	4,978	85,712	0	0	870	133,382	6,926	4,883	231,773																			
637	1F	C793	ASD	F-16 NUP	BALT	10.3	82	R. MEYER	1	45.5	29.5	23.6	0.0	0.0	16.0	2,671	162	2,948	2,484	80	68	2,632	46,025	0	0	69	195,925	7,831	6,283	256,133																			
633	1K	C545	ASD	F-16/ANRAH	BALT	10.4	82	J. BERGMAN	1	46.0	39.3	25.4	0.0	0.0	10.7	2,591	168	2,813	2,874	249	186	3,309	56,071	0	0	149	191,704	4,068	6,268	258,260																			
636	1M	C792	ASD	F-16 HSIP	BALT	10.5	82	R. HOBBS	1	234.2	191.5	112.1	0.0	0.0	24.9	12,022	1,095	19,816	11,325	399	569	12,293	208,695	0	0	1,582	885,258	41,414	31,158	1,168,107																			
635	1F	C750	ARMY	TERMINAL VAN	NIST	11.1	82	J. BERGMAN	1	28.0	26.8	1.0	1.2	0.0	0.0	89	18	0	1,650	23	15	1,688	29,924	0	0	291	4,270	757	1,913	37,155																			
639	1S	CA08	AEDC	16T IMPROVEMENTS	NIST	1.1	83	M. NESBITT	1	13.8	13.7	6.0	0.0	0.0	0.1	505	0	0	1,640	90	45	1,775	39,720	584	0	558	37,400	3,434	5,151	85,846																			
641	1U	C993	ASD	F-16 XL	BALT	1.2	83	S. MACLANAHAN	1	73.6	44.0	25.0	19.7	0.0	11.9	2,588	257	2,918	7,764	783	307	8,854	158,370	40	0	1,680	193,117	26,174	23,726	483,367																			
625	1A	C728	AEDC	16T IMPROVEMENTS	NIST	1.3	83	M. NESBITT	1	2.3	2.3	1.2	0.0	0.0	0.0	48	0	0	530	200	10	740	13,800	137	0	130	4,000	803	1,204	20,074																			
639	1S	CA08	AEDC	16T IMPROVEMENTS	NIST	1.4	83	M. NESBITT	1	1.2	1.2	0.4	0.0	0.0	0.0	10	0	0	110	10	5	2,380	39	0	37	750	229	344	3,179																				
6																																																	

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TIME IN THE DATABASE																DOWNTIME		MANHOURS		COST (\$)										
412																														
TEST PROJ	A.F.	SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	OSH	UOH	ADN	I/R	SCHED	AEDC	MMH	CF	ATP	CALSPAN	SUPPORT	DT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*	
650	28	C946	AEDC	16T IMPROVEMENTS	NIST	7.2	83	P. STICH	3	18.7	7.8	6.7	10.9	0.0	0.0	701	33	596	2,270	640	40	2,950	52,000	0	0	2,541	51,800	6,391	10,832	123,564
658	2J	C458	USAF	H66-105	NIST	7.3	83	J. RIDDELL	1	156.7	110.1	53.4	41.5	0.0	1.8	4,726	387	4,065	10,396	2,055	657	13,108	234,962	0	0	635	354,427	30,793	44,593	665,410
654	0W	C719	USAF	HPT-610	NIST	8.1	83	J. BLACK	1	264.8	95.9	49.3	135.0	0.0	13.9	5,800	563	8,944	20,477	6,889	2,349	29,715	557,509	43,539	8,598	7,396	424,117	35,220	91,745	1,168,124
656	2N	C432	USAF	JBL-500	NIST	9.1	83	S. MACLANAHAN	1	108.5	49.1	15.4	47.4	0.0	0.0	393	119	2,593	3,233	737	853	4,823	86,784	0	0	1,214	127,325	8,617	16,502	240,442
660	2N	C474	ASD	F-16 FLOW VII	NIST	9.2	83	K. O'CONNELL	1	24.5	8.0	2.8	16.5	0.0	0.0	332	27	281	2,340	20	50	2,410	43,400	519	0	496	24,300	3,054	4,581	76,351
653	01	C720	USAF	HPT-411	NIST	10.1	83	S. MACLANAHAN	1	165.5	97.4	54.8	55.0	0.0	13.0	6,969	648	9,942	13,412	4,520	2,331	20,263	374,469	11,550	2,276	12,432	508,176	28,187	73,243	1,010,333
657	1T	C989	USAF	SIT-741	NIST	10.2	83	D. WEIDUNILT	1	215.9	116.1	67.6	75.0	0.0	4.8	8,365	489	5,146	14,961	3,068	3,279	21,308	389,745	9,748	2,779	11,255	609,386	54,914	73,184	1,151,011
659	2H	C954	ASD	B-18	BAPT	11.1	83	C. BURCHFIELD	1	215.9	108.2	64.7	38.0	0.0	57.7	8,480	409	5,921	9,668	80	1,854	11,602	219,268	0	0	1,568	615,039	36,988	51,229	924,092
663	2A	C955	ASD	C-17	BAPT	12.1	83	J. SPURLIN	1	196.9	125.0	100.7	55.0	0.0	8.5	13,480	1,080	11,226	14,260	720	2,600	17,580	336,100	2,300	178	7,801	1,001,400	34,000	12,000	1,393,779
663	2A	C955	ASD	C-17	BAPT	1.1	84	J. SPURLIN	1	160.4	143.0	101.2	0.0	0.0	25.8	13,924	1,643	15,804	7,820	160	1,680	9,660	190,622	2,300	178	6,109	994,667	34,000	12,000	1,239,876
664	2F	C409	AFMIL	AFSI SIMULATOR	BAPT	1.2	84	D. REICHENAU	1	133.4	71.4	20.1	62.0	0.0	0.0	1,680	143	1,330	14,623	3,231	767	18,621	360,971	77,293	2,982	15,456	121,092	16,621	59,087	653,502
667	2V	C482	USAF	B6-103	NIST	2.1	84	E. HICKLE	1	228.3	150.4	87.9	31.7	0.0	37.5	6,499	800	14,400	11,051	1,558	1,605	14,214	263,789	956	858	5,784	491,077	20,575	51,498	834,637
666	0E	C607	USAF	RTD-384	NIST	2.2	84	P. LAUER	1	402.5	211.3	91.0	161.5	0.0	29.7	6,898	944	10,528	17,603	2,810	3,837	24,250	459,458	240	0	3,254	519,745	40,982	61,921	1,084,600
668	2C	C990	USAF	SET-101 PH II	NIST	5.1	84	E. LUCAS	1	164.0	89.8	35.4	67.5	0.0	6.7	2,527	77	949	14,413	3,801	2,169	20,383	386,728	10,831	3,597	6,579	191,734	25,444	62,535	687,448
672	3E	C952	ASD	F-16 LANTIRN	BAPT	5.2	84	T. BARRÉTT	1	70.0	6.6	3.8	63.3	0.0	0.1	343	10	72	3,704	40	389	4,133	77,801	0	0	447	25,345	6,726	17,863	128,182
669	2I	C817	ASD	F-16/PEACE MARBLE II	BAPT	5.3	84	K. O'CONNELL	1	99.0	57.4	23.3	23.7	0.0	17.9	2,825	209	2,078	7,077	114	1,118	8,309	160,457	21,807	0	2,341	203,630	26,342	33,487	448,064
673	0R	C491	AEDC	16T IMPROVEMENTS	NIST	6.1	84	F. KEENEY	1	8.0	1.6	1.3	6.4	0.0	0.0	161	70	940	780	118	10	908	16,735	120	0	41	11,865	6,598	1,492	36,851
634	1N	C779	IBRL	LAVI INLET	SIPT	6.2	84	J. BERGMAN	1	199.5	48.5	31.0	64.0	0.0	47.0	3,408	142	3,300	10,151	1,441	1,982	13,574	264,360	0	2,362	6,123	247,568	18,222	55,355	593,990
671	3H	C956	ASD	B-18 INLET	SIPT	6.3	84	J. RIDDELL	1	276.7	153.3	97.6	113.8	0.0	9.6	10,567	565	2,192	17,157	1,450	2,732	21,339	414,017	3,536	0	6,978	768,575	34,160	106,364	1,333,630
674	3H	C833	USAF	GRA-110	NIST	7.1	84	R. MEYER	1	119.7	88.4	42.1	30.0	0.0	1.3	4,623	500	7,600	5,838	387	1,160	7,385	141,623	0	0	3,434	335,852	9,621	37,757	528,287
675	3I	C479	USAF	LG-81	NIST	7.2	84	D. SCHALLER	1	224.8	59.2	34.6	162.9	0.0	2.7	3,414	210	1,110	7,095	1,641	1,518	10,255	194,803	0	0	5,331	250,396	22,373	37,612	510,515
676	3B	C873	USAF	SIT-742	NIST	8.1	84	E. STANTON	1	447.9	250.8	81.7	173.7	0.0	23.7	8,323	579	2,610	12,808	1,527	4,716	19,051	366,211	469	3,094	3,349	608,519	51,319	77,827	1,110,788
680	3H	C891	BNC	HARDEN MOBILE LAUN	NIST	9.1	84	R. HOBBS	1	150.3	39.7	20.9	95.8	0.0	7.0	3,088	80	341	5,682	863	1,109	7,654	145,877	23,628	0	2,506	219,599	11,589	30,410	433,609
681	3J	C881	ASD	F-16 LANTIRN	PRST	9.2	84	K. O'CONNELL	1	108.0	39.7	18.8	56.5	0.0	12.8	2,776	79	272	5,206	74	750	6,030	113,781	0	0	679	197,395	7,959	24,172	343,986
661	2P	C460	AFMIL	STOL EXHAUST NOZZLE	NAPT	9.3	84	C. SMITH	1	238.0	85.2	20.5	134.7	0.0	16.6	2,626	115	691	9,072	717	2,391	12,180	250,210	298	2,071	1,444	191,733	18,888	38,539	503,183
679	3H	C893	USAF	SET-101 PH II	NIST	9.4	84	B. PETERS	1	377.5	210.2	80.5	140.5	0.0	8.4	6,724	469	3,372	11,330	1,402	4,515	17,247	340,300	2,054	381	4,013	501,183	64,753	69,895	982,579
674	3L	C888	ASD	F-16/FWU-1108	NAPT	10.1	84	F. GUYTON	1	216.0	65.4	26.8	143.0	0.0	25.8	3,163	345	1,015	7,444	250	1,642	9,336	185,921	1,411	0	2,418	228,402	6,206	34,501	458,859
653	3T	C719	USAF	R6-106	NIST	10.2	84	R. MEYER	1	157.4	84.7	46.6	62.0	0.0	10.7	6,011	337	5,462	5,134	757	1,498	7,389	144,746	1,818	0	3,162	431,337	16,751	39,324	637,138
686	1C	C773	AEDC	16T IMPROVEMENTS	NIST	10.3	84	B. CARLETON	1	112.0	25.4	4.0	86.6	0.0	0.0	629	20	199	12,813	2,779	2,048	17,640	370,573	17,457	0	14,202	44,562	2,455	45,838	495,087
695	3A	C819	USAF	HPT-610, PH II	NIST	11.1	84	J. BLACK	1	239.0	76.7	30.7	154.4	0.0	7.9	3,744	125	2,700	8,441	962	3,391	12,794	269,069	4,520	2,270	1,224	269,734	33,166	39,420	619,403
684	3D	C818	AEDC	MAAS 1/4 SC. F-16	NIST	1.3	85	R. HOBBS	1	125.0	9.2	6.0	115.8	0.0	0.0	676	41	256	8,905	1,300	1,421	11,626	228,335	1,269	0	8,666	34,019	9,863	36,090	318,242
681	3C	C891	ASD	F-16 LANTIRN PH. 3	BAPT	2.1	85	K. O'CONNELL	1	142.4	48.9	19.2	99.5	0.0	5.9	2,117	198	421	4,325	129	368	4,822	93,036	0	0	1,248	106,166	7,477	22,575	250,502
681	3J	C881	ASD	F-16 LANTIRN PH. 3	BAPT	2.2	85	K. O'CONNELL	1	140.8	28.3	19.4	106.6	0.0	5.9	2,020	152	1,958	4,370	131	371	4,872	94,005	0	0	1,260	107,272	7,555	22,811	232,903
690	01	C850	USAF	HPT-714	NIST	2.3	85	J. BLACK	1	552.7	365.7	155.5	169.5	0.0	17.5	16,100	1,012	16,448	19,295	2,416	3,507	25,218	487,178	0	2,017	5,422	822,356	65,835	143,548	1,526,356
691	02	C845	USAF	SIT-743	NIST	3.1	85	E. STANTON	1	138.0	58.1	35.9	79.1	0.0	0.6	4,031	152	1,330	7,867	792	1,100	9,759	186,901	2,532	0	2,025	204,494	1,587	55,818	453,357
688	3V	C880	USAF	GRFL-B2, PH. 1 & 2	NIST	3.2	85	J. BERGMAN	1	631.5	398.4	106.4	292.5	0.0	24.6															

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														DOWNTIME		MANHOURS				COST (\$)										
TEST PROJ	A.F.	SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	OSH	UDN	ADN	T/R	SCHED	AEDC	MWH	DP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MAT.	TRAV.	PEI	ELEC	COMP	OTHER	TOTAL*	
732	12	CD76	USAF	PFD 85	NIST	12.1	85	J. BERGMANN	1	521.3	305.4	74.5	91.7	59.6	64.6	7,111	436	7,017	11,401	1,890	5,247	18,538	385,153	3,171	0	7,955	361,552	12,047	82,076	871,970
711	20	CE17	ASD	ACES EJECTION SEAT	NIST	12.3	86	D. REICHENAU	1	101.0	0.0	0.0	101.0	0.0	0.0	0	0	4,656	591	751	5,998	129,609	11,400	0	1,621	0	4,945	12,810	166,385	
702	12	CD76	USAF	PFD-85	NIST	1.1	86	J. BERGMANN	1	7.0	2.0	0.7	5.0	0.0	0.0	63	9	27	1,863	117	131	2,111	41,794	580	0	449	3,269	1,534	6,671	54,597
704	03	CC80	USAF	SSD-718	NIST	1.2	86	H. KIBER	1	607.1	474.4	226.6	241.2	0.0	91.3	17,556	2,463	45,282	28,463	5,672	7,666	41,741	871,861	21,487	2,246	19,675	923,041	26,267	263,003	2,067,580
708	19	CE01	ASD	F-16 NCID FORCE PH I	BAPT	2.1	86	R. MEYER	1	241.4	132.9	68.5	75.5	0.0	33.0	7,519	678	11,366	7,749	426	1,410	9,585	219,851	5,961	0	4,379	427,888	19,503	63,788	741,369
708	19	CE01	ASD	F-16 NCID FORCE PH I	PRST	2.2	86	R. MEYER	1	39.4	37.9	18.9	0.0	0.0	1.5	2,247	64	595	2,138	118	389	2,645	34,816	944	0	693	67,760	3,088	10,101	117,403
710	15	CD88	USAF	FSD-116	NIST	2.5	86	S. McLAMAHAN	1	77.0	11.7	8.2	65.3	0.0	0.0	723	44	187	4,999	1,095	827	6,921	141,600	377	0	417	37,477	2,022	23,240	205,174
707	17	CD98	ASD	F-16 NCID INLET	SIPT	3.1	86	C. BURCHFIELD	1	262.3	154.9	82.7	86.8	0.0	20.6	10,024	476	3,183	10,874	1,440	2,838	15,152	311,477	1,361	0	13,730	505,497	15,417	81,419	928,921
709	36	CC09	AFMIL	ANFAL/AEDC-129	DYST	4.1	86	T. BUCHANAN	1	141.0	19.9	7.2	121.1	0.0	0.0	662	0	0	12,794	1,836	1,097	15,727	319,150	23,478	0	2,358	54,250	3,467	39,903	446,464
709	36	CC09	AFMIL	ANFAL/AEDC-129	BALT	4.2	86	T. BUCHANAN	1	79.0	35.4	11.6	43.6	0.0	0.0	970	162	1,584	2,845	408	247	3,500	89,606	12,473	0	1,253	28,820	1,942	21,198	155,192
712*	18	C728	AEDC	16T IMPROVEMENTS	NIST	4.3	86	B. MILAN	1	3.0	3.0	0.9	0.0	0.0	0.0	109	13	39	2,119	23	27	2,169	53,112	518	0	0	5,432	263	5,919	66,244
705	13	CD80	AFMIL	F-15/F-110 STOL	NABT	4.5	86	C. SMITH	1	732.5	406.2	188.0	253.3	6.2	66.8	19,251	1,551	15,295	24,287	808	5,692	30,787	650,217	1,809	1,703	6,923	984,246	37,512	168,136	1,850,846
706	14	CD82	ASD	F-15/F-110 DRAG	NABT	5.1	86	R. RIDDLE	1	140.8	113.2	26.6	26.7	0.0	0.9	2,834	171	725	5,773	14	968	6,755	144,507	109	0	189	144,412	4,382	31,351	324,950
713	21	CE26	USAF	MMH-986	NIST	5.2	86	D. SCHALLER	1	169.1	64.8	6.2	104.3	0.0	0.0	575	33	329	7,002	2,352	1,121	10,475	211,053	395	1,290	3,792	29,659	4,941	31,920	283,050
714	25	CE97	USAF	BCU-86	NIST	6.1	86	J. SPURLIN	1	274.0	191.0	55.3	82.0	1.0	0.0	5,941	800	8,432	10,221	1,746	1,333	13,300	265,037	0	0	3,397	302,511	19,445	63,605	653,995
718	28	CE99	USAF	SIT-323	NIST	7.1	86	J. RIDDELL	1	503.8	313.3	162.8	176.5	3.4	10.6	21,589	879	7,265	18,380	1,565	4,241	24,186	503,350	0	514	11,519	1,081,622	48,710	152,767	1,798,462
716	27	CE98	USAF	HP-414	NIST	7.2	86	J. BLACK	1	542.6	316.2	196.0	179.5	0.0	46.9	17,759	712	14,370	18,764	1,999	3,979	24,742	528,619	921	854	8,445	918,377	49,881	146,393	1,653,490
719	29	CE99	ASD	F-16 NCID INLET	SIPT	8.1	86	C. BURCHFIELD	1	184.6	87.8	41.2	82.6	0.0	14.2	5,613	304	1,973	8,131	418	1,807	10,356	220,452	3,713	0	5,855	280,675	6,003	48,985	365,683
723	23	CE51	AEDC	16T HAAS/CTS CALIBRATION	NIST	12.1	86	E. LUCAS	1	247.0	10.8	7.9	214.3	0.0	21.9	582	103	975	10,881	64	404	11,349	244,298	2,370	0	1,486	127,635	5,412	43,973	425,194
721	30	CF56	ASD	F-16 CANOPY LOADS	PRST	12.2	86	R. MEYER	1	161.0	74.5	27.0	77.7	0.0	8.8	2,137	293	2,078	6,371	283	297	6,951	144,613	1,175	0	553	112,074	4,985	32,760	296,160

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## 16S TEST STATISTICS DATA BASE

PAGE 1

ITEMS IN THE DATABASE

01-Dec-86

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DOWNTIME

MANHOURS

COST (\$)

TEST PROJ A.F. SPONSOR	TITLE	TYPE	PD	FY	P.E.	ENTR	OSH	UON	ADN	I/R	SCHED	AEDC	MMH	DP	ATP	CALSPAN	SUPPORT	DT	TOTAL	LABOR	MAT.	TRAV.	PSI	ELEC	COMP	OTHER	TOTAL*		
169 63	ASD	B-1 INLET PH. 3	SIPS	1.1	75	P. LAUER	1	256.0	215.4	144.6	0.0	0.0	40.0	21,995	347	2,403	2,947	400	291	3,639	30,331	4,807	0	434	25,074	0	0	60,846	
170 13	NASA	PANEL FLUTTER	FLTS	3.1	75	C. RIDDLE	1	48.0	43.8	34.0	0.0	0.0	4.2	4,749	40	1,520	4,779	649	472	5,900	50,000	1,000	0	496	18,000	0	0	69,496	
169 63	ASD	B-1 INLET PH. 3	SIPS	4.1	75	P. LAUER	1	144.0	132.0	99.7	0.0	0.0	11.6	15,702	186	1,026	7,620	1,035	753	9,408	78,960	12,432	0	1,124	64,848	0	0	157,364	
172 94	ARMY	PLUME EFFECTS	NABS	5.1	75	J. RIDDELL	1	16.0	11.7	7.5	0.0	0.0	4.3	1,199	26	337	748	102	74	923	6,010	243	0	87	3,641	0	0	11,981	
171 88	ADTC	AIR SLEN	NABS	5.2	75	B. PETERS	1	96.0	87.7	43.4	3.6	0.0	4.7	4,450	82	827	2,076	282	205	2,563	21,153	249	0	707	76,255	0	0	98,364	
175 22	ASD	F-16	BALS	11.1	75	M. WHITE	1	64.0	43.7	22.5	12.0	0.0	4.3	4,128	69	1,032	1,163	158	115	1,436	12,768	268	0	254	22,166	0	0	35,456	
174 24	ASD	F-16 .05-SCALE INLET	SIPS	11.2	75	P. LAUER	1	32.0	29.2	20.7	0.0	0.0	2.8	3,721	92	402	2,617	355	258	3,231	27,643	361	0	346	20,104	0	0	48,454	
173 93	AFFDL	ADVANCED TECH. WING	BALS	1.1	76	J. SPURLIN	1	51.7	37.7	26.4	0.0	0.0	14.0	4,553	40	727	1,786	243	176	2,205	19,740	210	0	640	68,040	0	0	88,630	
176 18	AFAPL	PROPULSION SIMULATOR	MISS	4.1	76	J. RIDDELL	1	48.0	39.1	5.2	2.0	0.0	6.9	858	27	102	1,704	231	168	2,104	19,200	480	0	201	8,000	0	0	27,881	
177 88	ASD	F-16	BALS	4.2	76	M. WHITE	1	80.0	67.5	30.2	2.2	0.0	10.3	4,934	87	1,234	1,905	259	188	2,352	21,600	120	0	584	58,320	0	0	80,624	
178 82	ASD	RESEARCH INLET	SIPS	5.1	76	J. WALKER	1	48.0	46.8	28.7	0.0	0.0	1.2	4,898	128	529	4,137	562	409	5,108	49,610	410	0	644	38,540	0	0	89,204	
179 99	ASD	B-1 AFT END BUFFET	NABS	1.1	76	B. PETERS	1	64.0	57.4	19.8	0.0	0.0	6.3	3,374	49	245	2,075	282	205	2,562	24,780	630	0	397	29,190	0	0	54,997	
181 44	NAVY	F-18 INLET	SIPS	3.1	76	P. LAUER	1	144.0	62.7	61.8	24.2	0.0	57.1	10,757	166	680	7,695	1,045	760	9,500	88,700	1,977	0	1,889	172,400	0	0	264,966	
180 86	AFFDL	SUPERSONIC CONFIG.	PNSS	1.1	77	J. SPURLIN	1	16.0	10.6	6.9	0.0	0.0	5.4	927	6	139	454	62	45	560	544	116	0	110	14,720	0	0	15,490	
180 86	AFFDL	SUPERSONIC CONFIG.	BALS	1.1	77	J. SPURLIN	1	80.0	65.7	36.7	3.0	0.0	11.3	5,679	110	1,611	2,381	323	235	2,940	2,856	607	0	580	77,280	0	0	81,323	
182 00	AEDC	16S CHECKOUT	MISS	8.1	78	M. NESBITT	1	35.0	34.5	16.0	0.0	0.0	0.5	1,099	0	0	2,103	286	208	2,596	30,096	371	0	354	18,880	0	0	49,701	
183 36	AEDC	16S CHECKOUT	MISS	10.1	78	M. NESBITT	1	14.0	8.0	4.7	0.0	0.0	6.0	466	10	10	558	76	55	689	8,480	120	0	115	7,420	0	0	16,135	
183 36	AEDC	16S CHECKOUT	MISS	12.1	78	M. NESBITT	1	16.5	16.5	4.1	0.0	0.0	0.0	407	9	9	495	67	49	611	7,520	107	0	102	6,580	0	0	14,309	
184 36	AEDC	COMPRESSOR CHECKOUT	MISS	6.1	79	M. NESBITT	1	17.5	14.8	11.2	0.0	0.0	2.7	1,048	40	40	1,539	209	152	1,900	26,000	1,000	0	423	38,000	0	0	65,423	
185 C4	AEDC	COMPRESSOR CAL.	MISS	11.1	79	M. NESBITT	1	19.8	19.7	11.9	0.0	0.0	0.1	1,039	35	35	1,782	242	176	2,200	30,000	1,000	0	525	42,000	0	0	73,525	
186 25	AEDC	TUNNEL CALIBRATION	MISS	1.1	80	M. NESBITT	1	2.8	0.0	1.3	0.0	0.0	2.9	244	8	120	39	5	4	48	5,760	360	0	116	9,960	712	0	16,907	
187 25	AEDC	TUNNEL CALIBRATION	MISS	3.1	80	M. NESBITT	1	14.9	10.3	9.3	0.0	0.0	4.6	1,554	82	1,250	285	39	29	352	42,240	2,640	0	848	73,040	5,219	0	123,987	
187 25	AFFDL	ADV. NOZZLE	NABS	4.1	80	C. BURCHFIELD	1	124.9	72.3	48.8	32.6	0.0	18.5	9,385	200	1,790	7,695	1,045	760	9,500	132,000	10,000	0	3,764	414,000	23,000	0	582,764	
188 85	AFFDL	ASA	BAPS	5.2	80	J. SPURLIN	1	55.3	34.0	20.3	16.6	0.0	4.7	3,278	87	1,600	2,916	396	288	3,600	50,000	3,000	0	1,424	145,000	8,763	0	208,188	
190 88	ASD	F16 PAVE PENNY/H.T.	BALS	7.1	80	S. MACLANAHAN	1	60.0	54.0	34.4	2.0	0.0	4.0	6,341	208	4,160	3,078	418	304	3,800	54,000	6,000	0	2,438	279,000	15,004	0	336,442	
189 82	ASD	F-36	BAPS	8.1	80	M. SANDERS	1	139.0	67.7	58.1	38.6	0.0	32.7	11,787	209	4,200	6,399	869	632	7,900	114,000	12,000	0	4,561	517,000	15,000	0	662,561	
192 48	ASD	F-16 ECP 350	BALS	10.1	80	S. MACLANAHAN	1	36.0	8.8	7.2	22.9	0.0	4.3	1,496	68	1,360	2,430	330	240	3,000	42,000	3,000	0	783	66,000	2,000	0	113,783	
191 49	ASD	F-36 INLET	SIPS	11.1	80	H. McDILL	1	105.0	76.8	64.5	5.3	0.0	22.9	12,450	183	1,340	8,991	1,221	888	11,100	166,000	14,000	0	5,220	547,000	26,000	0	758,220	
193 42	AFFDL	LOW RACAR CROSS SECT.	SIPS	1.1	81	D. WIEDUMILT	1	144.1	96.4	53.8	30.6	0.0	17.1	10,325	223	2,370	7,371	1,001	728	9,100	139,000	11,000	0	4,776	521,000	18,000	0	693,776	
194 53	AFMNL	NASA F-18 NAB	NABS	2.1	81	C. BURCHFIELD	1	108.0	55.1	30.4	42.7	0.0	10.2	5,370	110	990	6,399	869	632	7,900	123,000	8,000	0	2,856	272,000	9,000	0	414,856	
195 64	C774	AEDC	C2745 CALIBRATION	MISS	9.1	83	M. NESBITT	1	41.6	38.3	20.5	0.0	0.0	3.3	1,737	33	33	3,000	300	200	3,500	50,000	4,000	0	900	70,000	2,200	8,000	135,000
195 64	C774	AEDC	16S COMPRESS CAL	MISS	4.1	84	M. NESBITT	1	21.5	16.7	13.0	0.0	0.0	4.0	968	66	587	12,789	221	489	13,499	265,981	80	0	4,018	203,800	14,792	42,338	531,005
196 95	C775	AEDC	16S TEST SECTION	MISS	4.2	84	M. NESBITT	1	188.2	93.7	62.0	30.2	0.0	41.1	9,074	157	2,395	17,539	497	1,493	19,529	361,903	834	0	1,954	645,443	28,725	69,094	1,108,153
197 26	C899	USAF	SIT-224	MISS	11.1	84	T. RIDDLE	1	276.1	149.1	0.0	112.2	0.0	14.8	1,188	122	1,554	13,027	2,240	1,380	16,647	404,122	5,417	0	8,430	79,443	27,338	47,164	571,619
198 97	C842	NWC	SUPER. HARM DRAG	BALS	12.1	84	E. NICKLE	1	55.7	13.1	6.6	41.0	0.0	1.6	1,066	12	240	5,454	97	179	5,730	113,290	1,455	0	489	75,406	5,678	17,653	213,971
200 96	C838	USAF	SIT-524 STATIC	MISS	7.1	85	S. JOHNSON	3	414.0	221.4	0.0	186.0	0.0	6.6	1,801	304	1,901	12,549	1,317	3,500	17,566	351,715	59	3,557	82,685	25,166	65,764	530,779	
202 11	C811	ASD	F-16 NCID	BAPS	3.1	86	R. MEYER	1	196.7	52.4	27.3	135.1	0.0	9.2	5,109	205	1,469	7,151	210	1,126	8,487	176,963	0	0	580	249,282	5,774	42,161	474,870
203 12	C899	ASD	F-16 NCID INLET	SIPS	4.1	86	C. BURCHFIELD	1	96.8	23.3	10.3	72.3	0.0	1.2	2,092	62	455	5,831	4	1,028	6,863	144,359	0	0	3,877	102,268	2,811	26,433	279,766

## APPENDIX B

### Work Phase Database Examples

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# TUNNEL 4T WORK PHASE DATABASE

06-Aug-86

68 = PROJECTS IN THE DATABASE

HOURS

COSTS (\$)

A.F.	CAL	TEST	TYPE	DATE	FY	ENTRS	OSH	UDH	ADH	1/R	MMH	OP	ATP	PHASE	CALSPAN	SUPPORT	OVER	TOTAL	LABOR	PURCH.	TRAVEL	PSI	ELEC.	AMDAL	DEC 10	OTHER	TOTAL*
C008	-21	692	DYSC	3.6	81	1	66.5	40.0	23.6	26.1	1,013	76	232	1	71	0	0	71	845	0	0	0	0	0	0	0	845
C008	-21	692	DYSC	3.6	81	1	66.5	40.0	23.6	26.1	1,013	76	232	2	0	0	0	0	0	0	0	0	0	0	0	0	0
C008	-21	692	DYSC	3.6	81	1	66.5	40.0	23.6	26.1	1,013	76	232	3	0	0	0	0	0	0	0	0	0	0	0	0	0
C008	-21	692	DYSC	3.6	81	1	66.5	40.0	23.6	26.1	1,013	76	232	4	0	0	0	0	0	0	0	0	0	0	0	0	0
C008	-21	692	DYSC	3.6	81	1	66.5	40.0	23.6	26.1	1,013	76	232	5	735	0	0	735	10,374	0	0	0	21,004	436	1,951	0	33,765
C008	-21	692	DYSC	3.6	81	1	66.5	40.0	23.6	26.1	1,013	76	232	6	46	0	0	46	671	0	0	0	0	0	0	0	671
C008	-21	692	DYSC	3.6	81	1	66.5	40.0	23.6	26.1	1,013	76	232	7	322	0	0	322	4,145	0	0	0	0	0	0	0	4,145
C008	-21	692	DYSC	3.6	81	1	66.5	40.0	23.6	26.1	1,013	76	232	8	198	0	0	198	2,817	0	0	0	0	0	0	0	2,817
C008	-21	692	DYSC	3.6	81	1	66.5	40.0	23.6	26.1	1,013	76	232	TOTAL	1,372	0	0	1,372	18,852	0	0	0	21,004	436	1,951	586	42,829
C014	-16	689	PRSC	11.6	81	1	63.6	15.2	12.6	46.0	675	56	768	1	67	0	0	67	1,124	0	0	0	0	0	0	0	1,124
C014	-16	689	PRSC	11.6	81	1	63.6	15.2	12.6	46.0	675	56	768	2	33	0	0	33	661	0	0	0	0	0	0	0	661
C014	-16	689	PRSC	11.6	81	1	63.6	15.2	12.6	46.0	675	56	768	3	329	0	0	329	4,745	0	0	224	0	0	0	0	4,969
C014	-16	689	PRSC	11.6	81	1	63.6	15.2	12.6	46.0	675	56	768	4	1,591	0	0	1,591	25,076	0	0	64	0	0	0	0	25,140
C014	-16	689	PRSC	11.6	81	1	63.6	15.2	12.6	46.0	675	56	768	5	487	0	0	487	7,628	0	0	12	45,762	2,198	3,308	0	58,996
C014	-16	689	PRSC	11.6	81	1	63.6	15.2	12.6	46.0	675	56	768	6	22	0	0	22	320	0	0	0	0	0	0	0	320
C014	-16	689	PRSC	11.6	81	1	63.6	15.2	12.6	46.0	675	56	768	7	0	0	0	0	0	0	0	0	0	0	0	0	0
C014	-16	689	PRSC	11.6	81	1	63.6	15.2	12.6	46.0	675	56	768	8	421	0	0	421	7,649	0	0	0	0	0	0	0	7,649
C014	-16	689	PRSC	11.6	81	1	63.6	15.2	12.6	46.0	675	56	768	TOTAL	2,950	0	0	2,950	47,203	0	0	302	45,762	2,198	3,308	1,129	59,894
C432	-15	722	C/F	7.2	82	1	58.0	33.0	22.6	24.0	794	259	4,220	1	191	0	0	191	3,450	0	0	0	0	0	0	0	3,450
C432	-15	722	C/F	7.2	82	1	58.0	33.0	22.6	24.0	794	259	4,220	2	298	0	0	298	5,820	0	0	0	0	0	0	0	5,820
C432	-15	722	C/F	7.2	82	1	58.0	33.0	22.6	24.0	794	259	4,220	3	0	159	0	159	2,354	0	0	0	0	0	0	0	2,354
C432	-15	722	C/F	7.2	82	1	58.0	33.0	22.6	24.0	794	259	4,220	4	1,468	209	17	1,694	27,648	0	0	20	0	89	0	322	28,079
C432	-15	722	C/F	7.2	82	1	58.0	33.0	22.6	24.0	794	259	4,220	5	778	18	86	882	14,719	0	0	19	60,691	257	13,213	1,896	90,795
C432	-15	722	C/F	7.2	82	1	58.0	33.0	22.6	24.0	794	259	4,220	6	42	0	0	42	648	0	0	0	0	0	0	0	650
C432	-15	722	C/F	7.2	82	1	58.0	33.0	22.6	24.0	794	259	4,220	7	0	0	0	0	0	0	0	0	0	0	0	0	0
C432	-15	722	C/F	7.2	82	1	58.0	33.0	22.6	24.0	794	259	4,220	8	506	0	0	506	7,593	0	0	0	0	599	0	92	8,284
C432	-15	722	C/F	7.2	82	1	58.0	33.0	22.6	24.0	794	259	4,220	TOTAL	3,283	386	103	3,772	62,432	0	0	39	60,691	945	13,213	2,458	139,778
C437	-14	723	BALC	6.2	82	1	48.2	17.0	10.5	23.8	368	153	1,654	1	166	0	0	166	3,292	0	0	0	0	561	0	38	3,891
C437	-14	723	BALC	6.2	82	1	48.2	17.0	10.5	23.8	368	153	1,654	2	226	0	0	226	3,830	0	0	0	0	0	0	0	3,830
C437	-14	723	BALC	6.2	82	1	48.2	17.0	10.5	23.8	368	153	1,654	3	0	298	8	306	4,761	0	0	87	0	0	0	0	4,988
C437	-14	723	BALC	6.2	82	1	48.2	17.0	10.5	23.8	368	153	1,654	4	1,778	0	23	1,801	30,225	0	0	15	0	30	0	349	30,619
C437	-14	723	BALC	6.2	82	1	48.2	17.0	10.5	23.8	368	153	1,654	5	652	4	44	700	11,474	0	0	20	28,129	0	3,363	914	43,900
C437	-14	723	BALC	6.2	82	1	48.2	17.0	10.5	23.8	368	153	1,654	6	38	0	0	38	622	0	0	0	0	0	0	0	622
C437	-14	723	BALC	6.2	82	1	48.2	17.0	10.5	23.8	368	153	1,654	7	0	0	0	0	0	0	0	0	0	0	0	0	0
C437	-14	723	BALC	6.2	82	1	48.2	17.0	10.5	23.8	368	153	1,654	8	710	2	0	712	12,121	0	0	0	0	371	0	142	12,634
C437	-14	723	BALC	6.2	82	1	48.2	17.0	10.5	23.8	368	153	1,654	TOTAL	3,570	304	75	3,949	66,325	0	0	122	28,129	962	3,363	1,355	100,456

# TUNNEL 16T WORK PHASE DATABASE

27-Aug-86

68 = PROJECTS IN THE DATABASE

A.F.	CAL	TEST	TYPE	DATE	FY	ENTRS	OSH	UOH	AOH	I/R	MMH	OP	ATP	PHASE	MANHOURS				COSTS (\$)									
															CALSPAN	SUPPORT	OVER	TOTAL	LABOR	PURCH.	TRAVEL	PSI	ELEC	AMDAHL	DEC 10	OT-ER	TOTAL*	
C391	-1B	627	MIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	1	528	0	0	528	11,976	1,350	0	0	0	0	0	403	13,729	
C391	-1B	627	MIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	2	2,461	0	0	2,461	46,627	9,793	0	4,867	0	0	0	2,809	64,096	
C391	-1B	627	MIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	3	55	3,204	0	3,259	42,138	0	1,826	0	0	0	0	1,452	45,416	
C391	-1B	627	MIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	4	9,163	271	215	9,649	173,703	1,586	1,827	4,799	0	6,707	0	21,946	210,566	
C391	-1B	627	MIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	5	12,118	13	1,726	13,857	253,855	1,359	0	4,037	218,422	2,130	39,412	55,036	574,251	
C391	-1B	627	MIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	6	327	0	65	392	6,482	0	0	0	0	0	0	941	7,423	
C391	-1B	627	MIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	7	0	0	0	0	0	0	0	0	0	0	0	0	0	
C391	-1B	627	MIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	8	1,812	0	7	1,819	33,698	0	420	0	0	0	0	4,364	38,482	
C391	-1B	627	MIST	2.1	83	1	418.0	316.3	139.5	98.0	3,558	1,418	6,868	TOTAL	26,464	3,488	2,013	31,965	568,479	14,088	2,247	15,529	218,422	8,837	39,412	86,951	953,965	
C392	-3B	613	MIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	1	1,498	185	0	1,683	33,977	27,371	0	2,003	0	297	0	2,740	66,388	
C392	-3B	613	MIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	2	2,643	4	213	2,860	54,042	835	0	2,432	0	0	0	842	58,131	
C392	-3B	613	MIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	3	621	3,272	671	4,564	69,544	361	0	2,226	0	0	0	888	73,019	
C392	-3B	613	MIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	4	10,031	1,366	479	11,876	204,678	27,251	0	5,101	0	4,105	0	8,308	249,443	
C392	-3B	613	MIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	5	5,816	25	520	6,361	109,586	0	106	467,914	4,918	14,231	14,151	610,906		
C392	-3B	613	MIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	6	504	0	18	522	8,646	0	0	12	0	0	0	100	8,758	
C392	-3B	613	MIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	7	4	0	0	4	62	0	0	0	0	0	0	1	63	
C392	-3B	613	MIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	8	2,003	637	24	2,664	49,756	0	0	1,815	0	14,171	0	734	66,476	
C392	-3B	613	MIST	7.2	82	1	277.0	93.1	53.8	168.0	6,088	266	2,114	TOTAL	23,120	5,489	1,925	30,534	530,291	55,818	0	13,695	467,914	23,491	14,231	27,764	1,133,204	
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	1	327	0	0	327	6,577	0	0	0	0	0	0	76	6,653	
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	2	576	0	0	576	12,130	202	0	0	0	0	0	157	12,489	
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	3	90	148	0	238	3,964	0	0	0	0	0	0	45	4,009	
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	4	4,803	0	31	4,834	82,853	0	1,186	254	0	2,433	0	1,850	88,576	
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	5	6,333	9	575	6,917	117,709	0	0	235	275,317	11,876	14,451	9,054	428,642	
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	6	125	0	4	129	2,069	0	0	0	0	0	0	24	2,093	
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	7	28	0	0	28	808	0	0	0	0	0	0	9	817	
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	8	667	0	0	667	10,532	0	0	0	0	2,459	0	124	13,115	
C399	-0T	619	NABT	6.1	82	1	232.7	124.3	39.8	81.3	3,502	268	1,539	TOTAL	12,949	157	610	13,716	236,642	202	1,186	489	275,317	16,768	14,451	11,339	356,394	
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	1	476	0	0	476	8,751	0	0	0	0	0	0	66	8,817	
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	2	325	16	0	341	6,964	0	0	0	0	0	0	52	7,016	
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	3	8	273	8	289	4,306	0	0	9	0	0	0	19	4,334	
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	4	3,734	3	66	3,803	62,251	0	0	60	0	54	0	841	63,206	
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	5	4,058	29	169	4,256	70,454	0	0	128	233,955	6,995	18,841	4,764	335,137	
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	6	117	0	0	117	1,918	0	0	0	0	0	0	23	1,941	
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	7	18	0	0	18	301	0	0	0	0	0	0	4	305	
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	8	978	1	0	979	16,849	0	0	0	0	1,811	0	196	18,856	
C401	-OK	612	BAPT	4.1	82	1	91.2	58.8	35.8	25.5	2,956	317	2,941	TOTAL	9,714	322	243	10,279	171,794	0	0	197	233,955	8,860	18,841	5,965	439,612	



# TUNNEL 16S WORK PHASE DATABASE

18-Aug-86

6 - PROJECTS IN THE DATABASE

## HOURS

## COSTS (\$)

A.F.	CAL	TEST	TYPE	DATE	FY	ENTRS	DSN	UON	ADN	I/R	MMN	OP	ATP	PHASE	CALSPAN	SUPPORT	OVER	TOTAL	LABOR	PURCH.	TRAVEL	PSI	ELEC	ARDAHL	DEC 10	OTHER	TOTAL*
CE11	11	202	BAPS	3.1	86	1	186.7	52.4	27.3	135.1	5,109	205	1,469	1	0	0	0	0	0	0	0	0	0	0	0	0	0
CE11	11	202	BAPS	3.1	86	1	186.7	52.4	27.3	135.1	5,109	205	1,469	2	115	0	0	115	2,216	0	0	0	0	0	0	344	2,560
CE11	11	202	BAPS	3.1	86	1	186.7	52.4	27.3	135.1	5,109	205	1,469	3	0	199	299	498	10,354	0	0	0	0	0	0	1,572	11,926
CE11	11	202	BAPS	3.1	86	1	186.7	52.4	27.3	135.1	5,109	205	1,469	4	3,009	11	335	3,355	70,099	0	0	546	0	0	0	10,074	80,719
CE11	11	202	BAPS	3.1	86	1	186.7	52.4	27.3	135.1	5,109	205	1,469	5	3,177	0	485	3,662	76,508	0	0	34	249,392	307	5,468	27,598	339,307
CE11	11	202	BAPS	3.1	86	1	186.7	52.4	27.3	135.1	5,109	205	1,469	6	106	0	9	115	2,281	0	0	0	0	0	0	344	2,625
CE11	11	202	BAPS	3.1	86	1	186.7	52.4	27.3	135.1	5,109	205	1,469	7	0	0	0	0	0	0	0	0	0	0	0	0	0
CE11	11	202	BAPS	3.1	86	1	186.7	52.4	27.3	135.1	5,109	205	1,469	8	746	0	0	746	15,506	0	0	0	0	0	0	2,229	17,735
CE11	11	202	BAPS	3.1	86	1	186.7	52.4	27.3	135.1	5,109	205	1,469	TOTAL	7,153	210	4,128	8,491	176,964	0	0	580	249,392	307	5,468	42,161	474,872
CD38	09	200	NISS	7.1	85	3	414.0	221.4	0.0	186.0	1,801	304	1,901	1	155	0	0	155	3,266	0	0	0	0	0	0	464	3,730
CD38	09	200	NISS	7.1	85	3	414.0	221.4	0.0	186.0	1,801	304	1,901	2	362	0	20	382	8,520	0	0	0	0	0	0	1,142	9,662
CD38	09	200	NISS	7.1	85	3	414.0	221.4	0.0	186.0	1,801	304	1,901	3	0	122	22	144	2,683	0	0	0	0	0	0	455	3,138
CD38	09	200	NISS	7.1	85	3	414.0	221.4	0.0	186.0	1,801	304	1,901	4	6,524	86	1,149	7,759	153,905	0	0	2,211	0	82	0	34,395	190,593
CD38	09	200	NISS	7.1	85	3	414.0	221.4	0.0	186.0	1,801	304	1,901	5	3,770	1,081	2,121	6,972	139,691	0	0	1,596	82,485	3,348	19,774	26,115	273,169
CD38	09	200	NISS	7.1	85	3	414.0	221.4	0.0	186.0	1,801	304	1,901	6	217	0	108	325	6,535	0	0	0	0	0	0	972	7,505
CD38	09	200	NISS	7.1	85	3	414.0	221.4	0.0	186.0	1,801	304	1,901	7	867	0	40	907	22,179	0	0	0	0	0	0	0	22,179
CD38	09	200	NISS	7.1	85	3	414.0	221.4	0.0	186.0	1,801	304	1,901	8	671	0	37	708	14,694	0	3,557	0	0	0	0	2,115	20,366
CD38	09	200	NISS	7.1	85	3	414.0	221.4	0.0	186.0	1,801	304	1,901	TOTAL	12,566	1,289	3,497	17,352	351,471	0	3,557	3,807	82,485	3,390	19,774	63,638	530,362
CC42	07	198	BALS	12.1	84	1	55.7	13.1	6.6	41.0	1,066	12	240	1	279	0	0	279	6,252	0	0	0	0	0	0	669	6,921
CC42	07	198	BALS	12.1	84	1	55.7	13.1	6.6	41.0	1,066	12	240	2	30	0	0	30	827	0	0	0	0	0	0	72	899
CC42	07	198	BALS	12.1	84	1	55.7	13.1	6.6	41.0	1,066	12	240	3	0	53	49	102	2,128	0	0	249	0	0	0	195	2,572
CC42	07	198	BALS	12.1	84	1	55.7	13.1	6.6	41.0	1,066	12	240	4	2,457	30	40	2,527	49,865	0	0	213	0	0	3,713	6,082	59,873
CC42	07	198	BALS	12.1	84	1	55.7	13.1	6.6	41.0	1,066	12	240	5	1,508	16	90	1,614	27,378	0	0	33	75,406	1,561	428	6,962	111,768
CC42	07	198	BALS	12.1	84	1	55.7	13.1	6.6	41.0	1,066	12	240	6	191	0	0	191	3,547	0	0	0	0	0	0	469	4,016
CC42	07	198	BALS	12.1	84	1	55.7	13.1	6.6	41.0	1,066	12	240	7	0	0	0	0	0	0	0	0	0	0	0	0	0
CC42	07	198	BALS	12.1	84	1	55.7	13.1	6.6	41.0	1,066	12	240	8	601	0	0	601	10,397	0	0	0	0	0	0	1,795	12,192
CC42	07	198	BALS	12.1	84	1	55.7	13.1	6.6	41.0	1,066	12	240	TOTAL	4,866	99	179	5,144	100,394	0	0	495	75,406	1,561	4,161	16,244	198,261
CA99	2W	197	NISS	11.1	84	1	276.1	149.1	0.0	112.2	1,188	122	1,554	1	67	0	0	67	1,356	5	0	10	0	0	0	161	1,532
CA99	2W	197	NISS	11.1	84	1	276.1	149.1	0.0	112.2	1,188	122	1,554	2	1,325	0	476	1,801	36,930	4,815	0	3,580	0	0	0	4,808	50,133
CA99	2W	197	NISS	11.1	84	1	276.1	149.1	0.0	112.2	1,188	122	1,554	3	1,274	1,296	29	2,599	45,634	597	0	727	0	0	0	5,451	52,409
CA99	2W	197	NISS	11.1	84	1	276.1	149.1	0.0	112.2	1,188	122	1,554	4	5,171	67	367	5,605	107,878	0	0	34	0	5,838	0	13,405	127,155
CA99	2W	197	NISS	11.1	84	1	276.1	149.1	0.0	112.2	1,188	122	1,554	5	4,924	857	508	6,289	117,557	0	0	4,080	79,148	6,009	15,490	18,624	240,908
CA99	2W	197	NISS	11.1	84	1	276.1	149.1	0.0	112.2	1,188	122	1,554	6	191	0	2	193	3,734	0	0	0	0	0	0	463	4,197
CA99	2W	197	NISS	11.1	84	1	276.1	149.1	0.0	112.2	1,188	122	1,554	7	0	0	0	0	0	0	0	0	0	0	0	0	0
CA99	2W	197	NISS	11.1	84	1	276.1	149.1	0.0	112.2	1,188	122	1,554	8	78	0	0	78	1,357	0	0	0	0	0	0	187	1,544
CA99	2W	197	NISS	11.1	84	1	276.1	149.1	0.0	112.2	1,188	122	1,554	TOTAL	13,030	2,220	1,382	16,632	314,446	5,417	0	8,431	79,148	11,847	15,490	43,099	477,878

## APPENDIX C

### Fiscal Year Totals

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# TUNNEL 4T TEST STATISTICS

15-Dec-86

MANHOURS

COST (\$)

FY	TYPE	ENTR	DSH	UOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	ALL TESTS	62	3,192.1	2,107.7	1,420.5	760.7	212.2	64,848	11,725	306,790	113,963	9,064	6,475	129,528	1,113,281	3,590	0	10,302	378,273	0	0	1,505,409
76	ALL TESTS	65	3,032.0	1,973.1	1,321.1	837.8	184.1	56,504	10,767	241,447	118,536	9,429	6,735	134,700	1,263,000	4,893	0	14,039	845,248	0	0	2,127,180
77	ALL TESTS	16	944.4	589.7	403.0	220.5	112.8	15,829	2,530	90,372	35,068	2,790	1,993	39,850	374,170	1,425	0	4,091	240,090	0	0	619,776
77	ALL TESTS	64	3,202.4	1,853.3	1,218.2	987.7	346.4	53,456	9,641	190,613	109,982	8,749	6,249	124,980	1,297,732	4,753	0	13,639	750,363	0	0	2,066,487
78	ALL TESTS	61	3,712.3	2,417.8	1,496.9	990.6	243.0	59,375	22,001	288,245	124,934	9,938	7,099	141,970	1,639,470	5,916	0	16,975	909,620	0	0	2,571,981
79	ALL TESTS	73	3,773.2	2,063.0	1,297.8	1,444.5	254.7	54,776	21,788	258,810	131,437	10,455	7,468	149,360	1,891,370	18,804	0	26,219	2,055,940	0	0	3,992,333
80	ALL TESTS	66	3,566.6	2,154.3	1,273.9	1,317.6	242.0	53,486	17,059	275,820	141,134	11,227	8,019	160,380	2,267,770	50,010	0	33,964	2,392,470	486,872	0	5,231,086
81	ALL TESTS	49	2,455.4	1,101.9	648.7	1,202.6	147.3	26,246	11,053	128,947	110,740	14,820	6,340	131,510	1,991,910	35,400	0	23,702	1,563,870	167,708	0	3,782,590
82	ALL TESTS	34	1,891.0	1,122.4	433.0	660.7	163.3	20,179	7,335	125,321	80,684	7,667	4,338	92,384	1,617,064	14,584	0	21,760	1,541,684	218,969	131,472	3,545,533
83	ALL TESTS	31	3,380.1	2,223.6	1,129.4	919.1	271.7	44,709	33,839	601,739	142,736	14,680	11,352	168,968	3,072,287	39,238	1,350	45,917	3,317,690	480,658	735,932	7,693,071
84	ALL TESTS	23	2,268.8	1,288.7	601.9	646.6	106.8	26,116	17,340	231,655	98,302	10,578	6,593	115,473	2,225,894	10,456	148	27,117	1,858,197	201,425	377,270	4,700,507
85	ALL TESTS	31	3,354.9	1,825.4	855.4	1,286.5	230.4	38,909	17,473	294,824	104,745	11,396	15,103	131,244	2,584,715	4,330	811	28,971	1,941,602	172,042	532,414	5,264,885
86	ALL TESTS	31	4,634.6	2,406.2	1,066.9	1,814.6	343.1	43,681	30,687	408,303	150,865	20,430	18,706	190,001	3,861,623	114,132	5,213	65,915	2,179,574	161,370	742,445	7,130,272

PRODUCTIVITY

COST

MANHOURS

ELECTRICITY

FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/DSH	\$/OP	\$/ATP	MHR/UOH	MHR/AOH	MHR/DSH	MHR/OP	MHR/ATP	MMH/UOH	MMH/AOH	MMH/DSH	MMH/OP	MMH/ATP
75	145.56	215.97	5.56	8.25	714	1,060	472	128	5	61.45	91.18	40.58	11.05	0.42	30.77	45.65	20.32	5.53	0.21
76	122.37	182.76	5.46	8.15	1,078	1,610	702	198	9	68.27	101.96	44.43	12.51	0.56	28.64	42.77	18.64	5.25	0.23
77	153.25	224.25	4.29	6.28	1,051	1,538	656	245	7	67.58	98.88	42.20	15.75	0.44	26.84	39.28	16.76	6.26	0.18
77	102.85	156.47	5.20	7.91	1,115	1,696	645	214	11	67.44	102.59	39.03	12.96	0.66	28.84	43.88	16.69	5.54	0.28
78	119.22	192.56	9.10	14.70	1,064	1,718	693	117	9	58.72	94.84	38.24	6.45	0.49	24.56	39.67	15.99	2.70	0.21
79	125.45	199.42	10.56	16.79	1,935	3,076	1,058	183	15	72.40	115.09	39.58	6.86	0.58	26.55	42.21	14.52	2.51	0.21
80	128.03	216.52	7.92	13.39	2,428	4,106	1,467	307	19	74.45	125.90	44.97	9.40	0.58	24.83	41.99	15.00	3.14	0.19
81	117.02	198.78	10.03	17.04	3,433	5,831	1,541	342	29	119.35	202.73	53.56	11.90	1.02	23.82	40.46	10.69	2.37	0.20
82	111.65	289.42	6.54	16.94	3,159	8,188	1,875	483	28	82.31	213.36	48.85	12.59	0.74	17.98	46.60	10.67	2.75	0.16
83	270.61	532.80	15.22	29.96	3,460	6,812	2,276	227	13	75.99	149.61	49.99	4.99	0.28	20.11	39.59	13.23	1.32	0.07
84	179.76	384.87	13.46	28.81	3,647	7,809	2,072	271	20	89.60	191.85	50.90	6.66	0.50	20.27	43.39	11.51	1.51	0.11
85	161.51	344.66	9.57	20.43	2,884	6,155	1,569	301	18	71.90	153.43	39.12	7.51	0.45	21.32	45.49	11.60	2.23	0.13
86	169.69	382.70	12.75	28.76	2,963	6,683	1,538	232	17	78.96	178.09	41.00	6.19	0.47	18.15	40.94	9.42	1.42	0.11

# TUNNEL 4T TEST STATISTICS

15-Dec-86

FY	TYPE	ENTR	OSH	UOH	AOH	I/R	AEDC		OP	ATP	MANHOURS				COST (\$)							TOTAL*
							DOWN	MMH			CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	
75	BALC	25	1,252.7	843.3	526.2	276.6	65.7	26,931	5,150	89,849	40,626	3,231	2,301	46,174	396,546	1,324	0	3,800	146,743	0	0	548,414
76	BALC	28	1,259.3	884.1	586.1	309.1	66.1	27,184	6,163	81,555	45,663	3,632	2,595	51,890	478,289	1,977	0	5,673	373,618	0	0	859,557
77	BALC	6	272.9	211.8	127.8	47.2	27.5	5,485	1,187	14,535	11,114	884	632	12,630	118,510	457	0	1,311	78,410	0	0	198,688
77	BALC	23	934.9	566.5	384.2	282.2	73.0	17,315	4,012	47,695	37,092	2,951	2,108	42,150	437,057	1,579	0	4,531	243,340	0	0	686,507
78	BALC	23	1,284.6	903.0	549.8	283.9	73.4	21,628	8,314	99,002	46,737	3,718	2,656	53,110	625,040	2,214	0	6,354	329,120	0	0	962,728
79	BALC	23	1,477.2	910.5	506.4	327.5	72.9	21,861	6,807	86,366	51,445	4,092	2,923	58,460	761,130	8,675	0	10,569	829,260	0	0	1,609,634
80	BALC	24	1,244.8	756.7	416.8	407.3	81.9	18,499	6,582	80,815	44,352	3,528	2,520	50,400	700,360	18,670	0	11,002	820,340	171,014	0	1,721,386
81	BALC	15	651.1	281.1	152.3	332.8	43.2	6,136	2,414	25,402	38,260	4,950	2,550	45,760	698,100	7,400	0	6,996	354,500	49,502	0	1,116,498
82	BALC	7	614.8	403.1	150.1	188.7	37.7	7,229	2,944	36,337	23,350	4,463	1,728	29,236	535,684	6,062	0	7,404	588,617	77,813	62,358	1,277,938
83	BALC	9	1,067.3	749.8	335.2	250.7	83.3	15,165	6,546	73,240	43,851	4,971	3,602	52,424	965,640	18,696	0	15,828	1,082,200	162,727	143,599	2,388,690
84	BALC	9	1,254.3	681.0	319.3	299.2	53.2	13,898	6,756	85,561	44,525	3,683	2,450	50,658	979,052	996	148	11,812	972,322	99,498	170,481	2,234,309
85	BALC	14	1,754.6	1,147.8	521.5	488.5	110.9	25,214	8,644	132,355	58,015	6,089	8,331	72,435	1,429,641	1,385	0	16,257	1,239,491	88,201	307,290	3,082,266
86	BALC	7	988.5	497.6	180.5	392.9	83.8	10,015	2,297	21,698	42,383	5,716	5,638	53,737	1,113,135	17,043	766	10,748	490,863	29,407	197,017	1,858,979

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FY	PRODUCTIVITY				COST				MANHOURS					ELECTRICITY					
	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MHR/UOH	MHR/AOH	MHR/OSH	MHR/OP	MHR/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	106.54	170.75	6.11	9.79	650	1,042	438	106	6	54.75	87.75	36.86	8.97	0.51	31.93	51.18	21.50	5.23	0.30
76	92.25	139.15	6.97	10.52	972	1,467	683	139	11	58.69	88.53	41.21	8.42	0.64	30.75	46.38	21.59	4.41	0.33
77	68.63	113.73	5.60	9.29	938	1,585	728	167	14	59.63	98.83	46.28	10.64	0.87	25.90	42.92	20.10	4.62	0.38
77	84.19	124.14	7.08	10.44	1,212	1,787	734	171	14	74.40	109.71	45.09	10.51	0.88	30.57	45.07	18.52	4.32	0.36
78	109.64	180.07	9.21	15.12	1,066	1,751	749	116	10	58.82	96.60	41.34	6.39	0.54	23.95	39.34	16.84	2.60	0.22
79	94.86	170.55	7.48	13.44	1,768	3,179	1,090	236	19	64.21	115.44	39.57	8.59	0.68	24.01	43.17	14.80	3.21	0.25
80	106.80	193.89	8.70	15.79	2,275	4,130	1,383	262	21	66.60	120.92	40.49	7.66	0.62	24.45	44.38	14.86	2.81	0.23
81	90.37	166.79	8.59	15.85	3,972	7,331	1,715	463	44	162.79	300.46	70.28	18.96	1.80	21.83	40.29	9.42	2.54	0.24
82	90.14	242.09	7.30	19.61	3,170	8,514	2,079	434	35	72.53	194.78	47.55	9.93	0.80	17.93	48.16	11.76	2.46	0.20
83	97.68	206.19	8.73	18.43	3,186	6,725	2,238	365	33	69.92	147.59	49.12	8.01	0.72	20.23	42.69	14.21	2.32	0.21
84	125.64	267.96	9.92	21.16	3,281	6,998	1,781	331	26	74.39	158.65	40.39	7.50	0.59	20.41	43.53	11.08	2.06	0.16
85	115.31	253.80	7.53	16.58	2,685	5,910	1,757	357	23	63.11	138.90	41.28	8.38	0.55	21.97	48.35	14.37	2.92	0.19
86	43.61	120.21	4.62	12.73	3,736	10,299	1,881	809	86	107.99	297.71	54.36	23.39	2.48	20.13	55.48	10.13	4.36	0.46

# TUNNEL 4T TEST STATISTICS

26-Nov-86

26-Nov-86						MANHOURS									COST (\$)							
FY	TYPE	ENTR	OSH	UDH	ADH	AEDC		MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
						I/R	DOWN															
75	BAPC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	BAPC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	BAPC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	BAPC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	BAPC	2	236.7	165.1	78.6	47.0	9.3	4,169	809	9,346	7,480	595	425	8,500	94,700	374	0	1,073	66,500	0	0	162,648
79	BAPC	5	288.7	122.4	70.9	125.8	41.6	3,539	631	6,913	9,143	727	520	10,390	128,200	2,295	0	1,671	122,400	0	0	254,566
80	BAPC	2	217.3	96.9	75.7	93.6	25.7	3,560	596	6,787	9,768	777	535	11,100	149,000	7,000	0	2,231	158,000	21,899	0	338,130
81	BAPC	2	121.0	104.0	28.9	15.0	6.0	1,472	566	6,670	3,960	330	50	4,340	62,100	0	0	908	75,500	6,426	0	144,934
82	BAPC	1	62.8	17.0	9.1	48.0	3.8	499	42	506	5,539	1,036	16	6,591	114,577	7,694	0	892	35,425	6,040	3,875	168,503
83	BAPC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	BAPC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	BAPC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	BAPC	2	252.6	96.5	31.3	140.4	9.7	1,776	351	3,583	9,064	239	1,066	10,369	214,702	16,048	0	3,437	87,015	8,238	37,047	366,487

## PRODUCTIVITY

## COST

## MANHOURS

## ELECTRICITY

FY	ATP/UDH	ATP/ADH	OP/UDH	OP/ADH	\$/UDH	\$/ADH	\$/OSH	\$/OP	\$/ATP	MMH/UDH	MMH/ADH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UDH	MMH/ADH	MMH/OSH	MMH/OP	MMH/ATP
75	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	56.61	118.91	4.90	10.29	985	2,069	687	201	17	51.48	108.14	35.91	10.51	0.91	25.25	53.04	17.61	5.15	0.45
79	56.48	97.50	5.16	8.90	2,080	3,590	882	403	37	84.89	146.54	35.99	16.47	1.50	28.91	49.92	12.26	5.61	0.51
80	70.04	89.66	6.15	7.87	3,489	4,467	1,556	567	50	114.55	146.63	51.08	18.62	1.64	36.74	47.03	16.38	5.97	0.52
81	64.13	230.80	5.44	19.58	1,394	5,015	1,198	256	22	41.73	150.17	35.87	7.67	0.65	14.15	50.93	12.17	2.60	0.22
82	29.76	55.60	2.47	4.62	9,912	18,517	2,683	4,012	333	387.71	724.29	104.95	156.93	13.03	29.35	54.84	7.95	11.88	0.99
83	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	37.13	114.47	3.64	11.21	3,798	11,709	1,451	1,044	102	107.45	331.28	41.05	29.54	2.89	18.41	56.75	7.03	5.06	0.50

# TUNNEL 4T TEST STATISTICS

26-Nov-86

26-Nov-86						MANHOURS								COST (\$)								
FY	TYPE	ENTR	OSH	UOH	AOH	AEDC		MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
						I/R	DOWN															
75	CTSC	17	955.1	688.5	509.5	166.4	83.9	20,634	3,387	146,518	35,096	2,795	2,002	39,899	337,060	1,119	0	3,211	133,400	0	0	474,789
76	CTSC	21	998.9	644.4	450.1	253.7	79.0	16,077	3,140	124,605	38,254	3,043	2,174	43,470	407,199	1,556	0	4,465	263,282	0	0	676,502
77	CTSC	4	509.6	311.9	237.1	89.9	41.1	8,421	1,092	74,142	20,610	1,639	1,171	23,420	220,000	832	0	2,387	138,500	0	0	361,719
77	CTSC	10	552.3	377.9	287.6	65.3	96.1	9,779	1,294	62,817	21,129	1,681	1,201	24,010	256,173	915	0	2,626	138,193	0	0	397,907
78	CTSC	7	504.9	354.9	270.7	96.1	38.0	9,033	4,265	98,873	14,837	1,180	843	16,860	187,480	764	0	2,191	141,560	0	0	331,995
79	CTSC	17	498.9	296.5	199.5	184.8	32.0	7,144	1,831	56,097	18,850	1,499	1,071	21,420	265,950	1,037	0	3,536	267,280	0	0	537,804
80	CTSC	12	529.3	341.9	203.9	156.3	20.2	8,544	1,733	64,685	21,349	1,698	1,213	24,260	348,380	1,510	0	5,442	393,950	77,269	0	826,551
81	CTSC	7	246.7	129.7	103.0	86.0	17.8	4,134	798	27,733	13,870	610	340	14,430	216,880	6,700	0	3,267	271,460	23,118	0	521,426
82	CTSC	9	302.1	188.5	83.4	96.0	28.2	2,952	1,175	30,444	15,424	711	644	16,779	285,528	410	0	7,152	277,121	35,814	20,522	626,546
83	CTSC	8	761.0	464.2	242.5	227.5	79.1	8,680	7,114	198,025	34,403	3,899	2,909	41,211	740,882	18,211	0	15,188	692,327	120,142	359,900	1,946,650
84	CTSC	3	326.3	206.3	122.9	104.3	20.4	4,118	4,545	86,557	14,445	1,589	1,606	17,640	330,094	50	0	5,147	323,070	41,730	59,024	759,115
85	CTSC	5	562.6	331.8	154.0	154.0	71.3	6,723	3,703	83,498	17,871	2,205	3,246	23,322	457,196	92	811	2,623	351,712	28,883	92,642	933,960
86	CTSC	10	1,849.2	1,045.0	538.5	578.4	168.6	18,951	21,482	289,802	55,542	5,405	5,324	66,271	1,322,799	4,193	2,566	21,044	969,515	76,953	271,409	2,668,478

## PRODUCTIVITY

## COST

## MANHOURS

## ELECTRICITY

FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	212.81	287.57	4.92	6.65	690	932	497	140	3	57.95	78.31	41.77	11.78	0.27	29.97	40.50	21.60	6.09	0.14
76	193.37	276.84	4.87	6.98	1,050	1,503	677	215	5	67.46	96.58	43.52	13.84	0.35	24.95	35.72	16.09	5.12	0.13
77	237.71	312.70	3.50	4.61	1,160	1,526	710	331	5	75.09	98.78	45.96	21.45	0.32	27.00	35.52	16.52	7.71	0.11
77	166.23	218.42	3.42	4.50	1,053	1,384	720	308	6	63.54	83.48	43.47	18.55	0.38	25.88	34.00	17.71	7.56	0.16
78	278.59	365.25	12.02	15.76	935	1,226	658	78	3	47.51	62.28	33.39	3.95	0.17	25.45	33.37	17.89	2.12	0.09
79	189.20	281.19	6.18	9.18	1,814	2,696	1,078	294	10	72.24	107.37	42.93	11.70	0.38	24.09	35.81	14.32	3.90	0.13
80	189.19	317.24	5.07	8.50	2,418	4,054	1,562	477	13	70.96	118.98	45.83	14.00	0.38	24.99	41.90	16.14	4.93	0.13
81	213.82	269.25	6.15	7.75	4,020	5,062	2,114	653	19	111.26	140.10	58.49	18.08	0.52	31.87	40.14	16.76	5.18	0.15
82	161.51	365.04	6.23	14.09	3,324	7,513	2,074	533	21	89.01	201.19	55.54	14.28	0.35	15.66	35.40	9.77	2.51	0.10
83	426.59	816.60	15.33	29.34	4,194	8,027	2,558	274	10	88.78	169.94	54.15	5.79	0.21	18.70	35.79	11.41	1.22	0.04
84	419.57	704.29	22.03	36.98	3,680	6,177	2,326	167	9	85.51	143.53	54.06	3.88	0.20	19.96	33.51	12.62	0.91	0.05
85	251.65	542.19	11.16	24.04	2,815	6,065	1,660	252	11	70.29	151.44	41.45	6.30	0.28	20.26	43.66	11.95	1.82	0.08
86	272.13	538.17	20.17	39.89	2,506	4,955	1,443	124	9	62.23	123.07	35.84	3.08	0.23	17.79	35.19	10.25	0.88	0.07

# TUNNEL 4T TEST STATISTICS

26-Nov-86

MANHOURS

COST (\$)

FY	TYPE	ENTR	OSH	UOH	AOH	I/R	AEDC		OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
							DOWN	MMH														
75	DYDC	2	58.3	25.1	8.1	23.8	2.5	391	53	178	643	52	36	730	6,020	19	0	53	1,990	0	0	8,044
76	DYDC	2	70.3	51.9	13.8	8.0	6.0	1,131	126	195	4,048	322	230	4,600	44,522	147	0	420	18,608	0	0	63,697
77	DYDC	1	26.4	11.5	6.5	11.9	35.2	340	17	43	563	45	32	640	6,000	23	0	65	3,800	0	0	9,888
77	DYDC	5	286.8	166.6	40.7	106.0	19.7	2,905	360	538	6,222	495	354	7,070	74,816	267	0	766	40,260	0	0	116,109
78	DYDC	5	256.6	152.3	32.7	99.3	21.6	2,257	358	696	8,923	710	507	10,140	117,940	376	0	1,079	44,070	0	0	163,465
79	DYDC	1	38.0	12.7	1.9	25.0	0.3	202	16	16	334	27	19	380	4,900	100	0	86	8,000	0	0	13,086
80	DYDC	3	136.4	74.1	17.4	48.7	4.0	1,378	174	189	2,077	165	118	2,360	33,500	0	0	512	37,200	16,747	0	87,958
81	DYDC	2	91.5	28.9	5.7	48.2	14.4	301	75	75	780	20	10	810	13,200	200	0	191	15,500	1,350	0	30,440
82	DYDC	5	212.0	137.8	21.1	75.9	14.0	1,662	262	273	6,436	216	229	6,881	115,868	94	0	3,053	84,873	12,345	4,362	220,595
83	DYDC	3	229.8	124.4	23.9	89.0	25.5	2,009	371	371	3,690	140	350	4,180	76,100	226	0	2,587	86,500	10,841	13,157	189,411
84	DYDC	3	206.5	128.9	22.8	65.2	9.1	1,931	260	514	10,496	3,152	1,034	14,682	277,061	9,277	0	4,601	108,545	9,128	47,813	456,425
85	DYDC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	DYDC	3	317.8	146.2	20.8	161.8	9.8	1,840	186	186	10,911	1,048	647	12,606	254,653	1,333	1,006	9,809	84,893	4,688	44,703	401,084

PRODUCTIVITY

COST

MANHOURS

ELECTRICITY

FY	PRODUCTIVITY				COST					MANHOURS					ELECTRICITY				
	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MHR/UOH	MHR/AOH	MHR/OSH	MHR/OP	MHR/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	7.09	21.98	2.11	6.54	320	993	138	152	45	29.08	90.12	12.52	13.77	4.10	15.57	48.23	6.70	7.37	2.19
76	3.76	14.13	2.43	9.13	1,227	4,616	906	506	327	88.63	333.33	65.43	36.51	23.59	21.79	81.95	16.09	8.98	5.80
77	3.74	6.62	1.48	2.62	860	1,521	375	582	230	55.65	98.46	24.24	37.65	14.88	29.60	52.37	12.89	20.02	7.92
77	3.23	13.22	2.16	8.85	697	2,853	405	323	216	42.44	173.71	24.65	19.64	13.14	17.44	71.38	10.13	8.07	5.40
78	4.57	21.28	2.35	10.95	1,073	4,999	637	457	235	66.58	310.09	39.52	28.32	14.57	14.82	69.02	8.80	6.30	3.24
79	1.26	8.42	1.26	8.42	1,030	6,887	344	818	818	29.92	200.00	10.00	23.75	23.75	15.91	106.32	5.32	12.63	12.63
80	2.55	10.86	2.35	10.00	1,187	5,055	645	506	465	31.85	135.63	17.30	13.56	12.49	18.60	79.20	10.10	7.92	7.29
81	2.60	13.16	2.60	13.16	1,053	5,340	333	406	406	28.03	142.11	8.85	10.80	10.80	10.42	52.81	3.29	4.01	4.01
82	1.98	12.94	1.90	12.42	1,601	10,455	1,041	842	808	49.93	326.11	32.46	26.26	25.21	12.06	78.77	7.84	6.34	6.09
83	2.98	15.52	2.98	15.52	1,523	7,925	824	511	511	33.60	174.90	18.19	11.27	11.27	16.15	84.06	8.74	5.42	5.42
84	3.99	22.54	2.02	11.40	3,541	20,019	2,210	1,755	888	113.90	643.95	71.10	56.47	28.56	14.98	84.69	9.35	7.43	3.76
85	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	1.27	8.94	1.27	8.94	2,743	19,283	1,262	2,156	2,156	86.22	606.06	39.67	67.77	67.77	12.58	88.44	5.79	9.89	9.89

# TUNNEL 4T TEST STATISTICS

26-Nov-86

## MANHOURS

## COST (\$)

FY	TYPE	ENTR	OSH	LOH	ADM	AEDC		MMH	OP	ATP	CALSPAN	SUPPORT	DT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
						I/R	DOWN															
75	DYSC	6	228.4	116.7	80.8	93.3	14.9	3,563	829	5,764	8,996	713	511	10,225	89,795	271	0	778	24,970	0	0	115,814
76	DYSC	2	100.7	49.4	37.6	51.0	2.0	1,366	130	2,486	3,546	282	202	4,030	38,300	134	0	384	19,370	0	0	58,188
77	DYSC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	DYSC	4	83.4	32.8	24.2	45.7	5.6	799	51	1,236	2,182	174	124	2,480	25,473	85	0	244	11,220	0	0	37,023
78	DYSC	3	89.2	64.5	44.9	23.0	1.5	1,513	235	3,107	4,312	343	245	4,900	55,610	181	0	518	22,220	0	0	78,529
79	DYSC	2	156.2	70.2	47.4	77.0	9.0	2,027	118	909	5,658	450	322	6,430	75,400	2,115	0	1,017	76,300	0	0	154,833
80	DYSC	5	280.2	169.6	114.4	160.0	19.3	4,665	286	1,572	17,169	1,366	976	19,510	280,160	3,000	0	3,678	208,170	38,330	0	533,338
81	DYSC	3	170.8	67.4	45.8	100.9	2.4	1,824	126	1,187	5,880	2,910	790	9,580	141,000	6,000	0	1,610	97,000	11,395	0	257,005
82	DYSC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	DYSC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	DYSC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	DYSC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	DYSC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## PRODUCTIVITY

## COST

## MANHOURS

## ELECTRICITY

FY	ATP/LOH		OP/LOH		\$/LOH		\$/OSH		\$/ATP	MMH/LOH		MMH/OSH		MMH/ATP	MMH/LOH		MMH/OSH		MMH/OP	MMH/ATP
	ATP/LOH	ATP/ADM	OP/LOH	OP/ADM	\$/LOH	\$/ADM	\$/OSH	\$/OP		MMH/LOH	MMH/ADM	MMH/OSH	MMH/OP		MMH/LOH	MMH/ADM	MMH/OSH	MMH/OP		
75	49.39	71.34	7.10	10.26	992	1,433	507	140	20	87.62	126.55	44.77	12.33	1.77	30.53	44.10	15.60	4.30	0.62	
76	50.32	66.12	2.63	3.46	1,178	1,548	578	448	23	81.58	107.18	40.02	31.00	1.62	27.66	36.34	13.57	10.51	0.55	
77	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
77	37.68	51.07	1.55	2.11	1,129	1,530	444	726	30	75.61	102.48	29.74	48.63	2.01	24.36	33.02	9.58	15.67	0.65	
78	48.17	69.20	3.64	5.23	1,218	1,749	880	334	25	75.97	109.13	54.93	20.85	1.58	23.46	33.70	16.96	6.44	0.49	
79	12.95	19.18	1.68	2.49	2,206	3,267	991	1,312	170	91.60	133.65	41.17	34.49	7.07	28.87	42.76	12.98	17.18	2.23	
80	9.27	13.74	1.69	2.50	3,145	4,662	1,903	1,865	339	115.04	170.54	69.63	68.22	12.41	27.51	40.78	16.65	16.31	2.97	
81	17.61	25.92	1.87	2.75	3,813	5,611	1,505	2,040	217	142.14	209.17	56.09	76.03	8.07	27.06	39.83	10.68	14.48	1.54	
82	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
83	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
84	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
85	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
86	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	



# TUNNEL 4T TEST STATISTICS

26-Nov-86

HOURS

COST (\$)

FY	TYPE	ENTR	OSH	UOH	AOH	AEC		MMH	OP	ATP	HOURS				COST (\$)							
						I/R	DOWN				CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	BRDC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	BRDC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	BRDC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	BRDC	9	768.4	456.3	328.5	196.4	112.8	16,319	2,719	72,191	25,511	2,029	1,450	28,990	291,290	1,206	0	3,459	228,210	0	0	524,165
78	BRDC	9	818.7	515.7	357.5	219.4	62.4	14,282	6,197	59,107	22,898	1,821	1,301	26,020	296,060	1,177	0	3,376	210,950	0	0	511,563
79	BRDC	22	1,125.3	546.7	414.2	425.9	92.5	17,534	11,891	103,703	38,641	3,074	2,196	43,910	554,190	3,262	0	8,069	664,000	0	0	1,229,522
80	BRDC	15	908.1	543.7	369.5	338.3	83.6	13,718	6,645	90,058	35,077	2,790	1,993	39,860	570,090	5,960	0	8,783	634,220	122,876	0	1,341,930
81	BRDC	14	777.9	384.4	245.7	332.0	53.9	9,811	6,535	64,556	33,110	3,350	2,360	38,820	590,330	11,100	0	7,914	597,710	56,000	0	1,263,054
82	BRDC	11	657.7	368.4	163.6	218.1	79.6	7,653	2,883	57,618	26,604	1,222	1,718	29,544	504,332	324	0	2,984	541,477	80,965	39,232	1,169,313
83	BRDC	11	1,322.0	885.2	507.8	351.9	83.8	18,855	19,808	330,103	60,792	5,670	4,691	71,153	1,289,665	2,105	1,350	12,314	1,456,663	186,948	219,276	3,168,320
84	BRDC	4	570.3	237.5	129.4	103.7	17.1	5,750	5,753	58,722	23,570	1,783	1,057	26,410	517,501	133	0	5,357	424,926	39,991	84,854	1,072,962
85	BRDC	5	409.5	214.6	116.7	150.1	45.2	4,339	4,613	73,928	13,383	2,194	1,865	17,442	329,589	17	0	5,700	222,747	24,871	69,694	652,618
86	BRDC	4	570.7	349.9	177.0	182.0	25.6	6,065	4,823	72,528	11,526	2,098	2,028	15,653	310,446	1,473	875	8,790	296,631	25,439	69,704	713,359

PRODUCTIVITY

COST

HOURS

ELECTRICITY

FY	PRODUCTIVITY				COST					HOURS					ELECTRICITY				
	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	158.21	219.76	5.96	8.28	1,149	1,596	682	193	7	63.53	88.25	37.73	10.66	0.40	35.76	49.68	21.24	6.00	0.23
78	114.62	165.33	12.02	17.33	992	1,431	625	83	9	50.46	72.78	31.78	4.20	0.44	27.69	39.95	17.44	2.30	0.24
79	189.69	250.37	21.75	28.71	2,249	2,968	1,093	103	12	80.32	106.01	39.02	3.69	0.42	32.07	42.33	15.58	1.47	0.17
80	165.64	243.73	12.22	17.98	2,468	3,632	1,478	202	15	73.31	107.88	43.89	6.00	0.44	25.23	37.13	15.11	2.06	0.15
81	167.94	262.74	17.05	26.68	3,286	5,141	1,624	193	20	100.99	158.00	49.90	5.92	0.60	25.52	39.93	12.61	1.50	0.15
82	156.40	352.19	7.83	17.62	3,174	7,147	1,778	406	20	80.20	180.59	44.92	10.25	0.51	20.77	46.78	11.64	2.65	0.13
83	372.91	650.06	22.38	39.01	3,579	6,239	2,397	160	10	80.38	140.12	53.82	3.59	0.22	21.30	37.13	14.26	0.95	0.06
84	247.25	453.80	24.22	44.46	4,518	8,292	2,898	187	18	111.20	204.10	71.32	4.59	0.45	24.21	44.44	15.53	1.00	0.10
85	344.49	633.49	21.49	39.52	3,041	5,592	1,594	141	9	81.28	149.46	42.59	3.78	0.24	20.22	37.18	10.59	0.94	0.06
86	207.31	409.76	13.79	27.25	2,039	4,030	1,250	148	10	44.74	88.43	27.43	3.25	0.22	17.34	34.27	10.63	1.26	0.08

# TUNNEL 4T TEST STATISTICS

26-Nov-86						MANHOURS								COST (\$)								
FY	TYPE	ENTR	OSH	LOH	ACH	1/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	DT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	MASC	3	153.4	102.6	70.2	41.9	2.4	3,082	632	26,682	8,538	679	485	9,700	86,860	244	0	699	18,170	0	0	105,973
76	MASC	4	165.4	82.6	69.0	73.0	7.8	2,642	347	21,812	10,542	839	599	11,980	116,810	369	0	1,060	42,330	0	0	160,569
77	MASC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	MASC	4	103.0	51.3	13.2	40.5	20.4	489	83	348	3,916	312	223	4,450	46,993	125	0	359	6,880	0	0	54,357
78	MASC	2	122.5	25.2	15.2	97.0	0.3	580	62	410	6,248	497	335	7,100	84,000	216	0	619	9,000	0	0	93,835
79	MASC	1	79.0	45.2	20.5	32.0	1.8	929	56	300	4,022	320	229	4,570	54,600	200	0	575	31,700	0	0	87,075
80	MASC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	MASC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	MASC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	MASC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	MASC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	MASC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	MASC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	PRODUCTIVITY				COST					MANHOURS					ELECTRICITY				
FY	ATP/LOH	ATP/ACH	OP/LOH	OP/ACH	\$/LOH	\$/ACH	\$/OSH	\$/OP	\$/ATP	MMH/LOH	MMH/ACH	MMH/OSH	MMH/OP	MMH/ATP	MMH/LOH	MMH/ACH	MMH/OSH	MMH/OP	MMH/ATP
75	260.06	380.09	6.16	9.00	1,033	1,510	691	168	4	94.54	138.18	63.23	15.35	0.36	30.04	43.91	20.09	4.88	0.12
76	264.07	316.12	4.20	5.03	1,944	2,327	971	463	7	145.04	173.62	72.43	34.52	0.55	31.99	38.29	15.97	7.61	0.12
77	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	6.78	26.36	1.62	6.29	1,060	4,118	528	655	156	86.74	337.12	43.20	53.61	12.79	9.53	37.02	4.74	5.89	1.40
78	16.27	26.97	2.46	4.08	3,724	6,173	766	1,513	229	281.75	467.11	57.96	114.52	17.32	23.02	38.16	4.73	9.35	1.41
79	6.64	14.63	1.24	2.73	1,926	4,248	1,102	1,535	290	101.11	222.93	57.85	81.61	15.23	20.55	45.32	11.76	16.59	3.10
80	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# TUNNEL 4T TEST STATISTICS

26-Nov-86						MANHOURS								COST (\$)								
FY	TYPE	ENTR	OSH	UOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	MISC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	MISC	2	35.8	20.3	17.5	13.0	1.5	916	68	1,679	1,355	108	77	1,540	14,000	55	0	158	9,720	0	0	23,933
77	MISC	2	40.1	12.0	6.8	28.0	0.1	291	46	527	616	49	35	700	6,540	24	0	70	3,960	0	0	10,594
77	MISC	5	301.5	123.4	82.1	165.5	12.3	3,543	628	2,387	7,682	611	437	8,730	90,530	325	0	934	49,700	0	0	141,489
78	MISC	6	170.2	107.9	80.1	45.4	19.2	3,299	1,022	9,128	6,459	514	367	7,340	88,640	314	0	902	46,800	0	0	136,656
79	MISC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	MISC	1	115.6	82.1	40.3	30.1	3.4	1,759	839	29,864	4,312	343	245	4,900	74,000	13,000	0	1,089	78,000	18,555	0	184,644
81	MISC	3	255.4	68.8	42.2	184.7	1.9	1,284	289	1,789	9,640	2,340	140	12,120	182,500	1,000	0	1,709	75,400	12,091	0	272,699
82	MISC	1	41.6	7.6	5.7	34.0	0.0	184	29	143	3,331	19	3	3,353	61,075	0	0	275	14,171	5,993	1,124	82,638
83	MISC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	MISC	4	111.4	35.0	7.5	74.2	7.0	419	26	301	5,266	371	446	6,083	122,186	0	0	0	29,334	11,078	15,098	177,696
85	MISC	3	147.1	35.3	22.5	111.3	0.5	726	141	1,670	4,096	371	196	4,663	92,582	525	0	2,178	35,380	4,997	16,838	152,500
86	MISC	2	383.3	198.9	90.1	161.5	22.9	3,772	953	18,215	10,695	3,995	3,683	18,572	381,732	71,776	0	5,764	182,791	9,624	77,653	729,341

PRODUCTIVITY					COST					MANHOURS					ELECTRICITY				
FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	82.71	95.94	3.35	3.89	1,179	1,368	669	352	14	75.86	88.00	43.02	22.65	0.92	45.12	52.34	25.59	13.47	0.55
77	43.92	77.50	3.83	6.76	883	1,558	264	230	20	58.33	102.94	17.46	15.22	1.33	24.28	42.84	7.26	6.33	0.55
77	19.34	29.07	5.09	7.65	1,147	1,723	469	225	59	70.75	106.33	28.96	13.90	3.66	28.71	43.16	11.75	5.64	1.48
78	84.60	113.96	9.47	12.76	1,267	1,706	803	134	15	68.03	91.64	43.13	7.18	0.80	30.20	40.69	19.15	3.19	0.36
79	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	363.75	741.04	10.22	20.82	2,249	4,582	1,597	220	6	59.68	121.59	42.39	5.84	0.16	21.43	43.65	15.22	2.10	0.06
91	25.00	42.39	4.20	6.85	3,964	6,462	1,068	944	152	176.16	287.20	47.45	41.94	6.77	18.66	30.43	5.03	4.44	0.72
82	18.82	25.09	3.82	5.09	10,873	14,498	1,986	2,850	578	441.18	588.25	80.60	115.62	23.45	24.21	32.28	4.42	6.34	1.29
83	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	8.60	40.13	0.74	3.47	5,077	23,693	1,595	6,834	590	173.80	811.07	54.61	233.96	20.21	11.97	55.87	3.76	16.12	1.39
85	47.31	74.22	3.99	6.27	4,320	6,778	1,037	1,082	91	132.10	207.24	31.70	33.07	2.79	20.57	32.28	4.94	5.15	0.43
86	91.58	202.16	4.79	10.58	3,667	8,095	1,903	765	40	92.37	203.91	47.93	19.28	1.01	18.96	41.86	9.84	3.96	0.21

# TUNNEL 4T TEST STATISTICS

26-Nov-86							MANHOURS							COST (\$)								
FY	TYPE	ENTR	OSH	UDH	ADH	AEDC		MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
						I/R	DOWN															
75	NABC	2	146.8	77.2	56.6	57.5	12.1	1,830	407	8,753	4,928	392	280	5,600	47,000	153	0	440	14,000	0	0	61,594
76	NABC	2	166.2	87.2	32.6	66.0	11.0	1,406	148	365	5,280	420	300	6,000	56,000	193	0	553	27,000	0	0	83,745
77	NABC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	NABC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	NABC	1	68.2	39.2	25.1	20.5	8.5	920	377	4,238	2,464	196	140	2,800	32,000	107	0	306	14,000	0	0	46,413
79	NABC	1	49.4	29.2	20.3	18.8	1.4	700	320	4,130	1,848	147	105	2,100	25,000	118	0	340	26,000	0	0	51,458
80	NABC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	NABC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	NABC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	NABC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	NABC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	NABC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	NABC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PRODUCTIVITY					COST					MANHOURS					ELECTRICITY				
FY	ATP/UDH	ATP/ADH	OP/UDH	OP/ADH	\$/UDH	\$/ADH	\$/OSH	\$/OP	\$/ATP	MMH/UDH	MMH/ADH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UDH	MMH/ADH	MMH/OSH	MMH/OP	MMH/ATP
75	113.38	154.65	5.27	7.19	798	1,088	420	151	7	72.54	98.94	38.15	13.76	0.64	23.71	32.34	12.47	4.50	0.21
76	4.19	11.20	1.70	4.54	960	2,569	504	566	229	68.81	184.05	36.10	40.54	16.44	16.12	43.12	8.46	9.50	3.85
77	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	108.11	168.84	9.62	15.02	1,184	1,849	681	123	11	71.43	111.55	41.06	7.43	0.66	23.47	36.65	13.49	2.44	0.22
79	141.44	203.45	10.96	15.76	1,762	2,535	1,042	161	12	71.92	103.45	42.51	6.56	0.51	23.97	34.48	14.17	2.19	0.17
80	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# TUNNEL 4T TEST STATISTICS

26-Nov-86

HOURS

COST (\$)

FY	TYPE	ENTR	OSH	UOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	PRSC	6	348.8	235.7	160.1	79.2	30.7	7,952	1,261	28,337	13,286	1,055	755	15,100	131,000	409	0	1,174	36,000	0	0	168,583
76	PRSC	4	235.4	153.2	114.4	64.0	10.7	5,782	645	8,750	9,847	783	560	11,190	107,880	462	0	1,327	91,320	0	0	200,989
77	PRSC	3	95.4	42.5	24.8	43.5	8.9	1,292	188	1,125	2,165	172	123	2,460	23,120	89	0	257	15,420	0	0	38,886
77	PRSC	4	172.1	78.5	57.7	86.1	6.5	2,307	494	3,401	6,248	477	355	7,100	75,400	251	0	719	32,560	0	0	108,929
78	PRSC	3	160.7	90.0	42.3	59.0	8.8	1,734	362	4,338	4,576	364	260	5,200	58,000	194	0	555	25,400	0	0	84,149
79	PRSC	1	60.5	29.6	16.7	27.7	3.2	840	118	376	1,496	119	85	1,700	22,000	1,000	0	356	31,000	0	0	54,356
80	PRSC	4	134.9	89.3	35.9	83.3	3.9	1,363	204	1,850	7,031	539	400	7,990	112,280	870	0	1,227	62,590	20,182	0	197,149
81	PRSC	3	141.0	37.6	25.1	103.0	7.7	1,284	230	1,535	5,240	310	100	5,650	87,800	3,000	0	1,106	76,800	7,827	0	176,533
82	PRSC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	PRSC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	PRSC	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	PRSC	4	481.1	95.9	40.7	382.7	2.5	1,908	373	3,373	11,380	538	1,465	13,382	275,707	2,311	0	2,213	92,272	25,090	45,950	443,542
86	PRSC	3	272.5	52.2	28.7	197.6	22.7	1,263	595	2,291	10,744	1,929	319	12,993	264,157	2,267	0	6,323	67,866	7,021	44,911	392,544

PRODUCTIVITY

COST

HOURS

ELECTRICITY

FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	120.22	177.00	5.35	7.88	715	1,053	483	134	6	64.06	94.32	43.29	11.97	0.53	33.74	49.67	22.80	6.31	0.28
76	57.11	76.49	4.21	5.64	1,312	1,757	854	312	23	73.04	97.81	47.54	17.35	1.28	37.74	50.54	24.56	8.96	0.66
77	26.47	43.36	4.42	7.58	915	1,568	408	207	35	57.88	99.19	25.79	13.09	2.19	30.39	52.08	13.54	6.87	1.15
77	43.32	58.94	6.29	8.56	1,388	1,888	633	221	32	90.45	123.05	41.26	14.37	2.09	29.38	39.98	13.40	4.67	0.68
78	48.20	102.55	4.02	8.56	935	1,989	524	252	19	57.78	122.93	32.36	14.36	1.20	19.27	40.99	10.79	4.79	0.40
79	12.70	22.51	3.99	7.07	1,836	3,235	898	461	145	57.43	101.80	28.10	14.41	4.52	28.38	50.30	13.88	7.12	2.23
80	20.72	51.53	2.28	5.68	2,208	5,492	1,461	966	107	89.47	222.56	59.23	39.17	4.32	15.26	37.97	10.10	6.68	0.74
81	40.82	61.16	6.12	9.16	4,695	7,033	1,252	768	115	150.27	225.10	40.07	24.57	3.68	34.15	51.16	9.11	5.58	0.84
82	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	35.17	82.87	3.89	9.16	4,625	10,898	922	1,189	131	139.54	328.80	27.82	35.88	3.97	19.89	46.87	3.97	5.11	0.57
86	43.89	79.83	11.40	20.73	7,520	13,678	1,441	660	171	248.91	452.71	47.68	21.84	5.67	24.19	44.00	4.63	2.12	0.55

# TUNNEL 16T TEST STATISTICS

02-Nov-86

MANHOURS

COST (\$)

FY	TYPE	ENTR	OSH	LOH	AOH	I/R	AEDC		MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
							DOWN	UP															
75	ALL TESTS	53	3,232.8	2,723.4	1,423.8	387.3	134.6	175,097	6,311	77,915	145,394	19,745	14,360	179,499	1,549,568	28,843	0	22,102	1,524,264	0	0	0	3,124,776
76	ALL TESTS	41	3,808.3	2,829.5	1,345.7	622.4	195.7	155,171	7,206	92,326	173,673	23,585	17,153	214,411	2,000,869	63,150	0	32,737	2,433,911	0	0	0	4,530,667
77	ALL TESTS	11	816.0	652.3	312.8	124.5	38.9	41,405	1,587	21,411	41,059	5,576	4,055	50,690	473,790	12,870	0	7,882	596,870	0	0	0	1,091,412
77	ALL TESTS	42	4,094.0	2,853.3	1,396.8	760.6	239.0	175,166	6,428	66,293	177,291	24,077	17,510	218,878	2,284,000	45,000	0	34,320	2,388,708	0	0	0	4,732,028
78	ALL TESTS	42	3,849.0	2,608.5	1,369.8	952.9	274.1	174,598	7,714	62,649	163,380	22,187	16,136	201,704	2,341,914	82,000	0	36,152	2,552,120	0	0	0	5,012,186
79	ALL TESTS	37	2,601.8	1,480.9	943.1	813.4	170.2	107,469	5,581	57,667	189,540	25,740	18,720	234,000	2,969,000	74,947	0	51,601	4,055,000	0	0	0	7,150,190
80	ALL TESTS	40	2,299.6	1,600.3	1,051.2	567.2	121.1	117,259	6,801	99,311	130,013	17,656	12,841	160,510	2,264,570	132,638	0	55,231	5,195,000	262,449	0	0	7,909,889
81	ALL TESTS	36	1,834.2	1,051.4	604.8	565.6	180.2	67,490	4,563	53,434	130,212	14,712	4,516	149,440	2,304,400	52,587	0	50,267	4,552,840	309,338	0	0	7,269,432
82	ALL TESTS	26	2,412.4	1,289.6	744.6	822.0	231.5	74,296	5,618	73,371	166,383	16,412	8,363	191,158	3,241,668	76,697	1,728	50,026	5,691,827	394,596	307,996	9,764,538	
83	ALL TESTS	28	2,916.6	1,684.7	849.7	989.0	157.5	80,419	7,836	92,237	207,382	35,431	23,462	266,150	4,858,157	94,687	16,223	85,670	6,111,253	514,916	793,505	12,474,411	
84	ALL TESTS	21	4,092.4	1,957.7	899.8	1,824.0	292.2	94,013	7,422	77,165	195,243	26,082	41,027	262,352	5,117,252	168,638	17,793	94,874	6,854,010	474,750	936,897	13,664,214	
85	ALL TESTS	20	6,796.3	3,462.4	1,405.9	2,865.2	393.2	147,353	9,479	117,783	250,083	33,163	70,234	353,480	7,080,268	128,536	25,891	178,365	7,599,804	804,625	1,651,274	17,468,763	
86	ALL TESTS	17	3,899.5	1,973.5	909.0	1,690.2	225.2	98,534	6,283	68,006	157,984	15,186	27,428	200,598	4,203,192	67,004	4,361	66,610	5,108,355	232,139	979,268	10,660,929	

PRODUCTIVITY

COST

MANHOURS

ELECTRICITY

FY	ATP/LOH	ATP/AOH	OP/LOH	OP/AOH	\$/LOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MHR/LOH	MHR/AOH	MHR/OSH	MHR/OP	MHR/ATP	MHR/LOH	MHR/AOH	MHR/OSH	MHR/OP	MHR/ATP
75	28.6	54.7	2.3	4.4	1,147	2,195	967	495	40	65.9	126.1	55.5	28.4	2.3	64.3	123.0	54.2	27.7	2.2
76	32.6	68.6	2.5	5.4	1,601	3,367	1,190	629	49	75.8	159.3	56.3	29.8	2.3	54.8	115.3	40.7	21.5	1.7
77	32.8	68.4	2.4	5.1	1,673	3,489	1,338	688	51	77.7	162.1	62.1	31.9	2.4	63.5	132.4	50.7	26.1	1.9
77	23.2	47.5	2.3	4.6	1,665	3,402	1,161	739	72	76.7	156.7	53.5	34.1	3.3	61.4	125.4	42.8	27.3	2.6
78	24.0	45.7	3.0	5.6	1,921	3,659	1,302	650	80	77.3	147.3	52.4	26.1	3.2	66.9	127.5	45.4	22.6	2.8
79	38.9	61.1	3.8	5.9	4,828	7,582	2,748	1,281	124	158.0	248.1	89.9	41.9	4.1	72.6	114.0	41.3	19.3	1.9
80	62.1	94.5	4.2	6.5	4,943	7,525	3,440	1,163	80	100.3	152.7	69.8	23.6	1.6	73.3	111.5	51.0	17.2	1.2
81	50.8	88.3	4.3	7.5	6,914	12,020	3,963	1,593	136	142.1	247.1	81.5	32.8	2.8	64.2	111.6	36.8	14.8	1.3
82	56.9	98.5	4.4	7.5	7,572	13,114	4,048	1,738	133	148.2	256.7	79.2	34.0	2.6	57.6	99.8	30.8	13.2	1.0
83	54.7	108.6	4.7	9.2	7,405	14,681	4,277	1,592	135	158.0	313.2	91.3	34.0	2.9	47.7	94.6	27.6	10.3	0.9
84	39.4	85.8	3.8	8.2	6,980	15,186	3,339	1,841	177	134.0	291.6	64.1	33.3	3.4	48.0	104.5	23.0	12.7	1.2
85	34.0	83.8	2.7	6.7	5,045	12,425	2,570	1,843	148	102.1	251.4	52.0	37.3	3.0	42.6	104.8	21.7	15.5	1.3
86	34.5	74.8	3.2	6.9	5,402	11,728	2,734	1,697	157	101.6	220.7	51.4	31.9	2.9	49.9	108.4	25.3	15.7	1.4

# TUNNEL 16T TEST STATISTICS

01-Dec-86

FY	TYPE	ENTR	OSH	UOH	AOH	1/R	AEDC		OP	ATP	MANHOURS				COST (\$)							
							DOWN	MMH			CALSPAN	SUPPORT	DT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	BALT	15	1,136.0	997.7	464.1	78.9	50.1	57,823	2,563	40,147	45,606	6,193	4,504	56,304	484,005	6,987	0	7,798	580,903	0	0	1,079,693
76	BALT	10	1,208.2	1,103.4	508.4	45.5	60.3	60,147	2,783	56,588	37,978	5,158	3,751	46,887	432,904	5,086	0	10,777	1,041,217	0	0	1,489,984
77	BALT	5	521.0	457.4	218.2	35.0	28.6	27,964	1,340	19,530	29,687	4,032	2,932	36,650	342,660	9,250	0	5,816	447,530	0	0	805,256
77	BALT	19	1,664.0	1,321.2	601.4	229.4	112.8	70,027	3,145	45,885	65,460	8,890	6,465	80,815	834,013	10,137	0	13,072	952,753	0	0	1,809,975
78	BALT	10	846.2	583.5	322.5	209.4	53.3	38,262	1,923	31,661	32,724	4,444	3,232	40,400	466,000	3,000	0	7,529	566,000	0	0	1,042,529
79	BALT	8	554.2	398.3	277.2	127.9	20.1	29,859	1,769	36,303	28,755	3,905	2,840	35,500	439,100	4,000	0	11,349	1,116,900	0	0	1,571,349
80	BALT	7	526.7	412.7	252.2	74.5	26.4	27,866	2,440	41,370	25,969	3,527	2,565	32,060	467,200	23,493	0	12,937	1,287,600	67,683	0	1,858,912
81	BALT	7	400.3	261.4	144.7	133.5	42.6	17,075	1,369	21,144	29,540	2,120	730	32,390	512,200	12,882	0	12,314	1,167,640	75,779	0	1,780,816
82	BALT	6	468.3	310.3	189.3	33.5	90.3	20,255	1,670	28,015	24,188	948	1,131	26,267	448,668	157	0	2,776	1,504,550	77,099	52,324	2,085,574
83	BALT	3	387.1	279.3	144.5	78.1	27.7	15,527	1,710	26,215	26,644	1,151	2,040	29,835	534,302	1,258	0	4,978	1,145,602	99,495	110,213	1,895,848
84	BALT	2	385.7	235.1	134.5	93.7	48.2	12,510	1,187	19,862	16,185	2,315	3,103	21,603	408,735	2,674	858	8,946	922,414	37,326	90,822	1,471,775
85	BALT	3	692.6	411.1	246.3	247.1	25.2	24,479	2,075	43,091	22,520	1,168	6,198	29,887	602,900	1,707	0	18,046	1,280,019	78,003	183,356	2,164,030
86	BALT	1	79.0	35.4	11.6	43.6	0.0	970	162	1,584	2,845	408	247	3,500	89,606	12,473	0	1,253	28,820	1,842	21,198	155,192

## PRODUCTIVITY

## COST

## MANHOURS

## ELECTRICITY

FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MHR/UOH	MHR/AOH	MHR/OSH	MHR/OP	MHR/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	40.2	86.5	2.6	5.5	1,082	2,326	950	421	27	56.4	121.3	49.6	22.0	1.4	58.0	124.6	50.9	22.6	1.4
76	51.3	111.3	2.5	5.5	1,350	2,931	1,233	535	26	42.5	92.2	38.8	16.8	0.8	54.5	118.3	49.8	21.6	1.1
77	42.7	89.5	2.9	6.1	1,761	3,690	1,546	601	41	80.1	168.0	70.3	27.4	1.9	61.1	128.2	53.7	20.9	1.4
77	34.7	76.3	2.4	5.2	1,370	3,010	1,088	576	39	61.2	134.4	48.6	25.7	1.8	53.0	116.4	42.1	22.3	1.5
78	54.3	98.2	3.3	6.0	1,787	3,233	1,232	542	33	69.2	125.3	47.7	21.0	1.3	65.6	118.6	45.2	19.9	1.2
79	91.1	131.0	4.4	6.4	3,945	5,669	2,835	888	43	89.1	128.1	64.1	20.1	1.0	75.0	107.7	53.9	16.9	0.8
80	100.2	164.0	5.9	9.7	4,504	7,371	3,529	762	45	77.7	127.1	60.9	13.1	0.8	67.5	110.5	52.9	11.4	0.7
81	80.9	146.1	5.2	9.5	6,813	12,307	4,449	1,301	84	123.9	223.8	80.9	23.7	1.5	65.3	118.0	42.7	12.5	0.8
82	90.3	148.0	5.4	8.8	6,721	11,017	4,453	1,249	74	84.7	138.8	56.1	15.7	0.9	65.3	107.0	43.3	12.1	0.7
83	93.9	181.4	6.1	11.8	6,788	13,120	4,898	1,109	72	106.8	206.5	77.1	17.4	1.1	55.6	107.5	40.1	9.1	0.6
84	84.5	147.7	5.0	8.8	6,260	10,943	3,816	1,240	74	91.9	160.6	56.0	18.2	1.1	53.2	93.0	32.4	10.5	0.6
85	104.8	175.0	5.0	8.4	5,264	8,786	3,125	1,043	50	72.7	121.3	43.2	14.4	0.7	59.5	99.4	35.3	11.8	0.6
86	44.7	136.6	4.6	14.0	4,384	13,379	1,964	958	98	98.9	301.7	44.3	21.6	2.2	27.4	83.6	12.3	6.0	0.6

# TUNNEL 16T TEST STATISTICS

26-Nov-86						MANHOURS										COST (\$)						
FY	TYPE	ENTR	OSH	UOH	AOH	1/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	DT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	BAPT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	BAPT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	BAPT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	BAPT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	BAPT	4	324.7	213.8	87.6	87.3	10.1	12,720	403	3,948	14,499	1,969	1,432	17,900	208,000	1,000	0	2,954	197,000	0	0	408,954
79	BAPT	5	386.9	192.8	139.4	84.8	60.4	16,007	640	7,456	19,359	2,629	1,912	23,900	295,000	5,000	0	6,518	596,000	0	0	902,518
80	BAPT	16	1,294.3	897.7	610.3	320.3	80.1	69,804	3,499	48,491	66,371	9,013	6,555	81,940	1,144,300	68,726	0	30,719	3,009,600	147,223	0	4,400,567
81	BAPT	2	208.0	160.9	94.4	34.4	12.7	10,546	791	11,784	10,640	2,120	820	13,580	197,200	7,063	0	6,751	723,800	41,547	0	976,362
82	BAPT	5	524.6	337.6	202.0	150.5	36.5	18,228	1,603	23,383	33,542	2,724	1,349	37,615	625,122	7,647	0	7,713	1,419,685	98,164	87,914	2,246,246
83	BAPT	6	1,053.8	547.7	307.0	387.8	82.6	35,784	2,886	36,705	62,967	11,606	9,615	84,188	1,567,054	45,839	8,776	20,430	2,716,603	158,767	241,251	4,758,720
84	BAPT	5	701.8	335.1	179.1	303.4	51.7	22,516	2,140	21,984	41,665	4,507	7,345	53,517	1,058,920	105,920	5,430	25,577	1,614,468	116,855	161,857	3,089,027
85	BAPT	4	1,832.4	931.2	321.1	718.8	116.1	28,625	2,293	32,962	50,714	4,989	12,874	68,577	1,375,195	3,171	3,088	22,462	1,476,993	160,126	323,010	3,364,045
86	BAPT	3	1,058.0	640.1	319.8	337.0	79.9	31,220	2,190	34,368	36,734	4,171	6,722	47,627	1,013,507	6,882	854	16,221	1,648,776	88,829	273,786	3,048,854

PRODUCTIVITY					COST					MANHOURS					ELECTRICITY				
FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MHR/UOH	MHR/AOH	MHR/OSH	MHR/OP	MHR/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	18.5	45.1	1.9	4.6	1,913	4,668	1,259	1,015	104	83.7	204.3	55.1	44.4	4.5	59.5	145.2	39.2	31.6	3.2
79	38.7	53.5	3.3	4.6	4,681	6,474	2,333	1,410	121	124.0	171.4	61.8	37.3	3.2	83.0	114.8	41.4	25.0	2.1
80	54.0	79.5	3.9	5.7	4,902	7,210	3,400	1,258	91	91.3	134.3	63.3	23.4	1.7	77.8	114.4	53.9	19.9	1.4
81	73.2	124.8	4.9	8.4	6,068	10,343	4,694	1,234	83	84.4	143.9	65.3	17.2	1.2	65.5	111.7	50.7	13.3	0.9
82	69.3	115.8	4.7	7.9	6,654	11,120	4,282	1,401	96	111.4	186.2	71.7	23.5	1.6	54.0	90.2	34.7	11.4	0.8
83	67.0	119.6	5.3	9.4	8,689	15,501	4,516	1,649	130	153.7	274.2	79.9	29.2	2.3	65.3	116.6	34.0	12.4	1.0
84	61.9	122.7	6.0	11.9	8,699	17,247	4,402	1,443	141	150.7	298.8	76.3	25.0	2.4	63.4	125.7	32.1	10.5	1.0
85	35.4	102.7	2.5	7.1	3,613	10,477	1,836	1,467	102	73.6	213.6	37.4	29.9	2.1	30.7	89.1	15.6	12.5	0.9
86	53.7	107.5	3.4	6.8	4,763	9,534	2,882	1,392	89	74.4	148.9	45.0	21.7	1.4	48.8	97.6	29.5	14.3	0.9



# TUNNEL 16T TEST STATISTICS

26-Nov-86

MMHOURS

COST (\$)

FY	TYPE	ENTR	OSH	UOH	AOH	1/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	DYST	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	DYST	1	72.5	50.1	22.9	16.5	1.9	1,149	40	661	3,969	539	392	4,900	52,000	0	0	509	18,000	0	0	70,509
77	DYST	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	DYST	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	DYST	1	112.0	23.0	14.9	80.0	9.0	1,284	21	253	8,100	1,100	800	10,000	115,000	5,000	0	1,011	19,000	0	0	140,011
79	DYST	2	90.0	49.1	32.3	35.0	5.9	2,543	54	1,098	12,263	1,665	1,211	15,140	184,000	6,300	0	2,058	92,600	0	0	284,958
80	DYST	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	DYST	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	DYST	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	DYST	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	DYST	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	DYST	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	DYST	1	141.0	19.9	7.2	121.1	0.0	662	0	0	10,009	1,436	860	12,305	261,604	23,478	0	2,358	54,250	3,467	39,903	385,060

PRODUCTIVITY

COST

MMHOURS

ELECTRICITY

FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76	13.2	28.9	0.8	1.7	1,407	3,079	973	1,763	107	97.8	214.0	67.6	122.5	7.4	22.9	50.2	15.8	28.7	1.7
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	11.0	17.0	0.9	1.4	6,087	9,397	1,250	6,667	553	434.8	671.1	89.3	476.2	39.5	55.8	86.2	11.5	61.1	5.1
79	22.4	34.0	1.1	1.7	5,804	8,822	3,166	5,277	260	308.4	468.7	168.2	280.4	13.8	51.8	78.7	28.3	47.1	2.3
80	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86	0.0	0.0	0.0	0.0	19,350	53,481	2,731	0	0	618.4	1,709.1	87.3	0.0	0.0	33.3	92.0	4.7	0.0	0.0

# TUNNEL 16T TEST STATISTICS

26-Nov-86						MANHOURS								COST (\$)								
FY	TYPE	ENTR	OSH	UOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	FSIT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	FSIT	3	624.0	300.8	113.0	249.9	5.0	12,724	430	1,767	35,316	4,796	3,488	43,600	397,553	30,323	0	5,025	262,823	0	0	695,724
77	FSIT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	FSIT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	FSIT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	FSIT	3	391.4	192.2	116.6	166.7	25.0	12,660	772	3,048	37,341	5,071	3,688	46,100	605,000	27,000	0	8,039	473,000	0	0	1,113,039
80	FSIT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	FSIT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	FSIT	1	148.3	92.8	60.4	53.2	2.3	4,205	533	8,939	14,490	2,450	820	17,760	300,600	4,845	0	4,631	331,200	28,501	42,752	712,530
83	FSIT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	FSIT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	FSIT	2	1,196.2	683.5	195.8	475.4	37.3	17,646	1,149	12,953	42,385	7,456	13,184	63,025	1,265,786	23,512	11,418	37,704	890,415	162,985	259,865	2,651,685
86	FSIT	1	77.0	11.7	8.2	65.3	0.0	723	44	187	4,999	1,095	827	6,921	141,600	377	0	417	37,477	2,023	23,240	205,134

PRODUCTIVITY					COST					MANHOURS					ELECTRICITY				
FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MHR/UOH	MHR/AOH	MHR/OSH	MHR/OP	MHR/ATP	MWH/UOH	MWH/AOH	MWH/OSH	MWH/OP	MWH/ATP
75	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76	5.9	15.6	1.4	3.8	2,313	6,157	1,115	1,618	394	144.9	385.8	69.9	101.4	24.7	42.3	112.6	20.4	29.6	7.2
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79	15.9	26.1	4.0	6.6	5,791	9,546	2,844	1,442	365	239.9	395.4	117.8	59.7	15.1	65.9	108.6	32.3	16.4	4.2
80	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82	96.3	148.0	5.7	8.8	7,678	11,797	4,805	1,337	80	191.4	294.0	119.8	33.3	2.0	45.3	69.6	28.4	7.9	0.5
83	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	19.0	66.2	1.7	5.9	3,880	13,543	2,217	2,308	205	92.2	321.9	52.7	54.9	4.9	25.8	90.1	14.8	15.4	1.4
86	16.0	22.8	3.8	5.4	17,533	25,016	2,664	4,662	1,097	591.5	844.0	89.9	157.3	37.0	61.8	88.1	9.4	16.4	3.9

# TUNNEL 16T TEST STATISTICS

26-Nov-86							MANHOURS							COST (\$)								
FY	TYPE	ENTR	OSH	LOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	MIST	7	213.0	177.6	91.7	102.4	6.6	8,816	370	8,836	10,043	1,364	992	12,399	107,702	2,038	0	1,501	104,951	0	0	216,192
76	MIST	12	698.8	455.7	205.8	110.6	86.8	21,426	1,916	12,690	47,949	6,512	4,736	59,196	554,628	20,781	0	6,778	356,255	0	0	938,442
77	MIST	2	128.0	48.2	20.2	75.0	4.8	2,397	66	237	964	131	95	1,190	11,050	50	0	107	3,590	0	0	14,797
77	MIST	5	262.1	160.0	78.4	96.0	5.4	9,798	367	3,361	21,263	2,888	2,100	26,250	264,391	8,567	0	2,986	137,447	0	0	413,391
78	MIST	9	317.9	204.0	104.0	95.2	18.7	11,176	589	5,171	14,907	2,024	1,472	18,404	224,914	3,000	0	2,841	169,120	0	0	399,875
79	MIST	12	408.6	206.2	83.5	157.2	16.6	9,306	372	1,453	49,621	6,739	4,901	61,260	793,900	25,647	0	8,426	344,500	0	0	1,172,115
80	MIST	15	404.6	233.9	148.5	158.4	10.6	14,584	738	7,396	31,922	4,335	3,153	39,410	549,070	35,420	0	9,139	671,800	38,360	0	1,303,789
81	MIST	18	330.5	203.4	85.6	114.0	13.5	8,547	527	9,265	31,530	4,660	1,410	37,600	589,600	9,201	0	8,795	610,200	54,124	0	1,271,921
82	MIST	8	388.9	156.0	73.0	209.2	23.7	7,906	417	3,811	40,222	6,865	2,271	49,358	847,088	56,543	0	20,786	603,462	66,052	41,248	1,635,180
83	MIST	11	608.1	375.6	164.1	184.1	16.8	5,609	1,526	8,780	42,354	5,045	2,314	49,588	890,161	18,333	2,247	21,199	371,368	68,304	131,519	1,503,131
84	MIST	4	672.8	278.0	117.2	340.3	36.7	10,776	1,114	12,008	36,878	6,570	7,004	50,452	991,643	41,445	0	20,003	795,771	61,624	139,661	2,050,147
85	MIST	6	1,547.3	634.4	187.4	826.6	86.3	20,975	1,680	10,171	87,263	12,514	18,533	118,310	2,371,745	94,593	9,333	62,268	1,170,737	106,903	437,733	4,253,312
86	MIST	4	520.1	78.6	15.0	419.6	21.9	1,264	149	1,343	24,658	3,030	2,303	29,991	638,072	14,683	1,290	6,899	162,746	15,561	95,622	934,873

PRODUCTIVITY					COST					MANHOURS					ELECTRICITY				
FY	ATP/LOH	ATP/AOH	OP/LOH	OP/AOH	\$/LOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/LOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/LOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	49.8	96.4	2.1	4.0	1,217	2,358	1,015	584	24	69.8	135.2	58.2	33.5	1.4	49.6	96.1	41.4	23.8	1.0
76	27.8	61.7	4.2	9.3	2,059	4,560	1,343	490	74	129.9	287.6	84.7	30.9	4.7	47.0	104.1	30.7	11.2	1.7
77	4.9	11.7	1.4	3.3	307	733	116	224	62	24.7	58.9	9.3	18.0	5.0	49.7	118.7	18.7	36.3	10.1
77	21.0	42.9	2.3	4.7	2,584	5,273	1,577	1,126	123	164.1	334.8	100.2	71.5	7.8	61.2	125.0	37.4	26.7	2.9
78	25.3	49.7	2.9	5.7	1,960	3,845	1,258	679	77	90.2	177.0	57.9	31.2	3.6	54.8	107.5	35.2	19.0	2.2
79	7.0	17.4	1.8	4.5	5,684	14,037	2,869	3,151	807	297.1	733.7	149.9	164.7	42.2	45.1	111.4	22.8	25.0	6.4
80	31.6	49.8	3.2	5.0	5,574	8,780	3,222	1,767	176	168.5	265.4	97.4	53.4	5.3	62.4	98.2	36.0	19.8	2.0
81	45.6	108.2	2.6	6.2	6,253	14,859	3,848	2,414	137	184.9	439.3	113.8	71.3	4.1	42.0	99.8	25.9	16.2	0.9
82	24.4	52.2	2.7	5.7	10,482	22,400	4,205	3,921	429	316.4	676.1	126.9	118.4	13.0	50.7	108.3	20.3	19.0	2.1
83	23.4	53.5	4.1	9.3	4,002	9,160	2,472	985	171	132.0	302.2	81.5	32.5	5.6	14.9	34.2	9.2	3.7	0.6
84	43.2	102.5	4.0	9.5	7,375	17,493	3,047	1,840	171	181.5	430.5	75.0	45.3	4.2	38.8	91.9	16.0	9.7	0.9
85	16.0	54.3	2.6	9.0	6,704	22,696	2,749	2,532	418	186.5	631.3	76.5	70.4	11.6	33.1	111.9	13.6	12.5	2.1
86	17.1	89.5	1.9	9.9	11,894	62,325	1,797	6,274	696	381.6	1,999.4	57.7	201.3	22.3	16.1	84.3	2.4	8.5	0.9

# TUNNEL 16T TEST STATISTICS

26-Nov-86						MANHOURS								COST (\$)								
FY	TYPE	ENTR	OSH	UOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	NABT	9	580.0	515.8	287.4	35.4	18.2	32,006	950	8,082	27,983	3,800	2,764	34,547	301,403	6,476	0	3,944	290,359	0	0	602,182
76	NABT	5	548.0	414.8	185.0	86.0	27.2	23,410	740	5,434	16,798	2,281	1,659	20,738	200,020	4,370	0	3,515	278,810	0	0	486,715
77	NABT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	NABT	5	926.0	497.3	259.1	142.5	47.8	30,816	926	5,793	33,348	4,529	3,294	41,170	438,255	15,626	0	6,191	397,207	0	0	857,279
78	NABT	10	1,387.5	961.0	499.3	330.8	111.7	60,920	2,935	11,324	59,130	8,030	5,840	73,000	856,000	62,000	0	13,145	889,000	0	0	1,820,145
79	NABT	3	447.6	298.7	199.8	114.8	34.1	26,846	1,416	4,943	23,652	3,212	2,336	29,200	368,000	3,000	0	10,228	1,035,000	0	0	1,416,228
80	NABT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	NABT	2	265.5	156.3	63.2	98.6	10.6	5,505	290	2,497	23,400	1,060	470	24,930	386,800	6,207	0	5,933	422,600	36,513	0	858,053
82	NABT	2	313.4	139.6	50.5	145.5	28.3	4,699	301	2,165	18,418	841	725	19,984	341,487	228	1,186	2,330	364,480	36,256	15,292	761,259
83	NABT	2	248.4	130.6	35.5	117.3	4.5	3,248	250	2,303	26,566	4,576	1,147	32,289	597,232	5,282	0	6,771	242,811	47,099	75,389	974,384
84	NABT	4	995.5	450.6	163.2	485.7	58.5	15,100	1,034	6,227	42,259	6,170	10,717	59,146	1,163,159	14,594	6,049	14,454	1,113,052	115,291	205,470	2,632,069
85	NABT	1	432.9	265.4	128.5	141.3	26.2	12,392	415	3,908	12,535	3,453	6,714	22,702	450,984	2,267	2,052	11,095	637,013	32,858	117,673	1,253,942
86	NABT	2	873.3	519.4	214.6	280.0	67.7	22,085	1,722	16,020	30,060	822	6,660	37,542	794,724	1,918	1,703	7,112	1,128,658	42,194	199,487	2,175,796

PRODUCTIVITY					COST					MANHOURS					ELECTRICITY				
FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	15.7	28.1	1.8	3.3	1,167	2,095	1,038	634	75	67.0	120.2	59.6	36.4	4.3	62.1	111.4	55.2	33.7	4.0
76	13.1	29.4	1.8	4.0	1,173	2,631	888	658	90	50.0	112.1	37.8	28.0	3.8	56.4	126.5	42.7	31.6	4.3
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	11.6	22.4	1.9	3.6	1,724	3,309	926	926	148	82.8	158.9	44.5	44.5	7.1	62.0	118.9	33.3	33.3	5.3
78	11.8	22.7	3.1	5.9	1,894	3,645	1,312	620	161	76.0	146.2	52.6	24.9	6.4	63.4	122.0	43.9	20.8	5.4
79	16.5	24.7	4.7	7.1	4,741	7,088	3,164	1,000	287	97.8	146.1	65.2	20.6	5.9	89.9	134.4	60.0	19.0	5.4
80	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81	16.0	39.5	1.9	4.6	5,490	13,577	3,232	2,959	344	159.5	394.5	93.9	86.0	10.0	35.2	87.1	20.7	19.0	2.2
82	15.5	42.9	2.2	6.0	5,453	15,074	2,429	2,529	352	143.2	395.7	63.8	66.4	9.2	33.7	93.0	15.0	15.6	2.2
83	17.6	64.9	1.9	7.0	7,462	27,453	3,923	3,898	423	247.2	909.5	130.0	129.2	14.0	24.9	91.5	13.1	13.0	1.4
84	13.8	38.2	2.3	6.3	5,841	16,128	2,644	2,546	423	131.3	362.4	59.4	57.2	9.5	33.5	92.5	15.2	14.6	2.4
85	14.7	30.4	1.6	3.2	4,725	9,758	2,897	3,022	321	85.5	176.7	52.4	54.7	5.8	46.7	96.4	28.6	29.9	3.2
86	30.8	74.7	3.3	8.0	4,189	10,139	2,491	1,264	136	72.3	174.9	43.0	21.8	2.3	42.5	102.9	25.3	12.8	1.4

# TUNNEL 16T TEST STATISTICS

26-Nov-86						MANHOURS								COST (\$)								
FY	TYPE	ENTR	OSH	LOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	PRST	15	583.8	478.3	274.0	58.9	33.8	38,326	1,227	11,440	27,914	3,791	2,757	34,462	297,037	4,600	0	4,181	273,068	0	0	578,885
76	PRST	8	437.4	362.2	222.9	61.6	5.9	25,015	775	10,400	19,161	2,602	1,892	23,656	220,374	0	0	4,268	366,346	0	0	590,988
77	PRST	3	160.0	146.7	74.4	7.5	5.5	11,044	181	1,644	10,247	1,392	1,012	12,650	118,080	3,570	0	1,945	145,750	0	0	269,345
77	PRST	8	752.9	565.6	280.4	140.0	45.9	41,799	1,123	6,090	31,301	4,251	3,091	38,643	413,341	4,670	0	7,401	599,301	0	0	1,024,713
78	PRST	6	588.7	446.9	261.0	76.8	65.0	39,454	1,523	8,623	22,356	3,036	2,208	27,600	312,000	4,000	0	6,322	553,000	0	0	875,322
79	PRST	2	205.5	94.9	60.1	69.0	5.1	7,015	365	2,432	10,773	1,463	1,064	13,300	163,000	0	0	3,194	276,000	0	0	442,194
80	PRST	2	74.0	56.0	40.2	14.0	4.0	5,005	124	2,054	5,751	781	568	7,100	104,000	5,000	0	2,437	226,000	9,184	0	346,621
81	PRST	4	300.1	92.7	89.1	108.1	49.7	11,382	628	4,593	17,060	1,670	410	19,140	291,000	7,677	0	7,338	710,000	45,156	0	1,061,171
82	PRST	1	120.2	42.1	28.1	35.0	8.0	2,978	127	1,416	5,323	17	183	5,523	89,568	0	0	150	244,812	24,349	5,270	364,149
83	PRST	1	165.5	97.4	54.8	55.0	13.0	6,969	648	9,942	13,412	4,520	2,331	20,263	374,469	11,550	2,276	12,432	508,176	28,187	73,243	1,010,333
84	PRST	1	108.0	38.7	18.8	56.5	12.8	2,776	30	272	5,206	74	750	6,030	113,781	0	0	679	197,395	7,959	24,172	343,986
85	PRST	1	167.6	106.1	49.2	48.0	13.5	6,836	182	4,037	3,610	382	1,663	5,654	116,133	750	0	3,641	295,955	12,058	37,816	466,353
86	PRST	2	200.4	112.4	45.9	77.7	10.3	4,384	357	2,673	8,509	401	686	9,596	179,429	2,119	0	1,246	179,834	8,073	42,861	413,563

PRODUCTIVITY				COST				MANHOURS					ELECTRICITY						
FY	ATP/LOH	ATP/AOH	OP/LOH	OP/AOH	\$/LOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/LOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/LOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	23.9	41.8	2.6	4.5	1,210	2,113	992	472	51	72.1	125.8	59.0	28.1	3.0	80.1	139.9	65.6	31.2	3.4
76	28.7	46.7	2.1	3.5	1,632	2,651	1,351	763	57	65.3	106.1	54.1	30.5	2.3	69.1	112.2	57.2	32.3	2.4
77	11.2	22.1	1.2	2.4	1,836	3,620	1,683	1,488	164	86.2	170.0	79.1	69.9	7.7	75.3	148.4	69.0	61.0	6.7
77	10.8	21.7	2.0	4.0	1,812	3,654	1,361	912	168	68.3	137.8	51.3	34.4	6.3	73.9	149.1	55.5	37.2	6.9
78	19.3	33.0	3.4	5.8	1,959	3,354	1,487	575	102	61.8	105.7	46.9	18.1	3.2	88.3	151.2	67.0	25.9	4.6
79	25.6	40.5	3.8	6.1	4,660	7,358	2,152	1,211	182	140.1	221.3	64.7	36.4	5.5	73.9	116.7	34.1	19.2	2.9
80	36.7	51.1	2.2	3.1	6,190	8,622	4,684	2,795	169	126.8	176.6	95.9	57.3	3.5	89.4	124.5	67.6	40.4	2.4
81	49.5	51.5	6.8	7.0	11,447	11,910	3,536	1,690	231	206.5	214.8	63.8	30.5	4.2	122.8	127.7	37.9	18.1	2.5
82	33.6	50.4	3.0	4.5	8,650	12,959	3,030	2,867	257	131.2	196.5	45.9	43.5	3.9	70.7	106.0	24.8	23.4	2.1
83	102.1	181.4	6.7	11.8	10,373	18,437	6,105	1,559	102	208.0	369.8	122.4	31.3	2.0	71.6	127.2	42.1	10.8	0.7
84	7.0	14.5	0.8	1.6	8,889	18,297	3,185	11,466	1,265	155.8	320.7	55.8	201.0	22.2	71.7	147.7	25.7	92.5	10.2
85	38.0	82.1	1.7	3.7	4,395	9,479	2,783	2,562	116	53.3	114.9	33.7	31.1	1.4	64.4	139.0	40.8	37.6	1.7
86	23.8	58.2	3.2	7.8	3,679	9,010	2,064	1,158	155	85.4	209.1	47.9	26.9	3.6	39.0	95.5	21.9	12.3	1.6

# TUNNEL 16T TEST STATISTICS

26-Nov-86						MANHOURS								COST (\$)								
FY	TYPE	ENTR	OSH	UOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	SIPT	3	192.0	183.9	120.3	2.8	5.2	16,869	424	2,012	8,413	1,143	831	10,387	87,421	1,742	0	1,194	74,983	0	0	165,340
76	SIPT	1	107.4	66.7	42.1	25.0	7.7	5,623	305	778	6,022	818	595	7,434	71,390	590	0	927	55,460	0	0	128,367
77	SIPT	1	7.0	0.0	0.0	7.0	0.0	0	0	0	162	22	16	200	2,000	0	0	15	0	0	0	2,015
77	SIPT	2	265.0	167.0	97.6	89.0	9.0	14,517	514	2,264	11,664	1,584	1,152	14,400	149,000	2,000	0	2,524	196,000	0	0	349,524
78	SIPT	2	272.0	176.3	80.5	73.4	6.3	10,782	320	1,669	11,664	1,584	1,152	14,400	160,000	4,000	0	2,350	159,000	0	0	325,350
79	SIPT	2	117.6	48.7	34.2	58.0	3.0	3,233	193	934	7,776	1,056	768	9,600	121,000	4,000	0	1,790	121,000	0	0	247,790
80	SIPT	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	SIPT	3	329.8	176.7	127.8	77.0	51.1	14,435	958	4,151	18,042	3,082	676	21,800	327,600	9,557	0	9,135	918,600	56,217	0	1,321,110
82	SIPT	3	448.7	211.2	141.3	195.1	42.4	16,025	967	5,642	30,200	2,567	1,884	34,651	589,135	7,277	542	11,639	1,223,638	64,174	63,196	1,959,601
83	SIPT	5	453.7	254.1	143.8	166.7	12.9	13,282	816	8,292	35,439	8,533	6,015	49,987	894,939	12,424	2,924	19,860	1,126,693	113,064	161,890	2,331,794
84	SIPT	5	1,228.6	600.2	287.0	544.4	84.3	30,335	1,917	16,812	53,050	6,446	12,108	71,604	1,381,014	4,005	5,456	23,215	2,210,910	135,695	314,915	4,077,210
85	SIPT	3	927.3	430.7	277.6	408.0	88.6	36,400	1,685	10,661	31,056	3,200	11,069	45,325	897,525	2,536	0	23,150	1,848,672	251,692	291,821	3,315,396
86	SIPT	3	950.7	536.0	286.7	345.9	45.4	37,226	1,659	12,421	37,385	3,423	8,886	49,694	1,035,279	5,074	514	31,104	1,867,794	70,150	283,171	3,293,086

PRODUCTIVITY					COST					MANHOURS					ELECTRICITY				
FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	10.9	16.7	2.3	3.5	899	1,374	861	390	82	56.5	86.3	54.1	24.5	5.2	91.7	140.2	87.9	39.8	8.4
76	11.7	18.5	4.6	7.2	1,925	3,049	1,195	421	165	111.5	176.6	69.2	24.4	9.6	84.3	133.6	52.4	18.4	7.2
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	13.6	23.2	3.1	5.3	2,093	3,581	1,319	680	154	86.2	147.5	54.3	28.0	6.4	86.9	148.7	54.8	28.2	6.4
78	9.5	20.7	1.8	4.0	1,845	4,042	1,196	1,017	195	81.7	178.9	52.9	45.0	8.6	61.2	133.9	39.6	33.7	6.5
79	19.2	27.3	4.0	5.6	5,088	7,245	2,107	1,284	265	197.1	280.7	81.6	49.7	10.3	66.4	94.5	27.5	16.8	3.5
80	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81	23.5	32.5	5.4	7.5	7,477	10,337	4,006	1,379	318	123.4	170.6	66.1	22.8	5.3	81.7	112.9	43.8	15.1	3.5
82	26.7	39.9	4.6	6.8	9,278	13,868	4,367	2,026	347	164.1	245.2	77.2	35.8	6.1	75.9	113.4	35.7	16.6	2.8
83	32.6	57.7	3.2	5.7	9,177	16,216	5,140	2,858	281	196.7	347.6	110.2	61.3	6.0	52.3	92.4	29.3	16.3	1.6
84	28.0	58.6	3.2	6.7	6,793	14,206	3,319	2,127	243	119.3	249.5	58.3	37.4	4.3	50.5	105.7	24.7	15.8	1.8
85	24.8	38.4	3.9	6.1	7,698	11,943	3,575	1,968	311	105.2	163.3	48.9	26.9	4.3	84.5	131.1	39.3	21.6	3.4
86	22.3	43.3	3.0	5.8	5,923	11,486	3,464	1,985	265	89.4	173.3	52.3	30.0	4.0	67.0	129.8	39.2	22.4	3.0

# TUNNEL 16S TEST STATISTICS

02-Nov-86

02-Nov-86						MANHOURS										COST (\$)							
FY	TYPE	ENTR	OSH	UOH	AOH	I/R	AEDC		OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*	
							DOWN	MMH															
75	ALL TESTS	7	656.0	563.5	372.4	15.6	71.9	55,944	842	7,547	21,950	2,981	2,168	27,099	229,065	19,360	0	3,448	230,088	0	0	0	481,961
76	ALL TESTS	4	227.7	191.1	90.5	4.2	32.4	15,245	282	2,592	9,533	1,295	942	11,769	110,150	1,220	0	2,069	172,900	0	0	0	286,339
77	ALL TESTS	2	208.0	120.1	81.6	24.2	63.4	14,131	215	925	9,770	1,327	965	12,062	113,480	2,607	0	2,286	201,590	0	0	0	319,963
77	ALL TESTS	2	96.0	76.3	43.6	3.0	16.7	6,606	116	1,750	2,835	385	280	3,500	3,400	722	0	690	92,000	0	0	0	96,813
78	ALL TESTS	3	65.5	59.0	24.8	0.0	6.5	1,972	19	19	3,156	429	312	3,896	46,096	598	0	572	32,880	0	0	0	80,145
79	ALL TESTS	2	37.3	34.5	23.1	0.0	2.8	2,107	75	75	3,321	451	328	4,100	56,000	2,000	0	948	80,000	0	0	0	138,948
80	ALL TESTS	8	537.9	323.9	244.1	118.0	94.5	46,534	1,045	15,820	31,833	4,323	3,144	39,300	606,000	51,000	0	19,154	2,051,000	95,698	0	0	2,822,853
81	ALL TESTS	2	252.1	151.5	84.2	73.3	27.3	15,695	433	3,360	13,770	1,870	1,360	17,000	262,000	19,000	0	7,632	793,000	27,000	0	0	1,108,632
82	ALL TESTS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
83	ALL TESTS	1	41.6	38.3	20.5	0.0	3.3	1,737	33	33	3,000	300	200	3,500	50,000	4,000	0	800	70,000	2,200	8,000	0	135,000
84	ALL TESTS	4	541.5	272.6	81.6	183.4	61.5	12,296	357	4,776	48,809	3,055	3,541	55,405	1,145,296	7,786	0	14,891	1,003,997	76,533	176,249	0	2,424,752
85	ALL TESTS	3	414.0	221.4	0.0	186.0	6.6	1,801	304	1,901	12,549	1,317	3,500	17,366	351,715	59	3,357	3,833	82,685	23,166	65,764	0	530,779
86	ALL TESTS	2	293.5	75.7	37.6	207.4	10.4	7,201	267	1,924	12,982	214	2,154	15,350	321,322	0	0	4,457	351,680	8,585	68,594	0	754,638

## PRODUCTIVITY

## COST

## MANHOURS

## ELECTRICITY

FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MHR/UOH	MHR/AOH	MHR/OSH	MHR/OP	MHR/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	13.4	20.3	1.5	2.3	855	1,294	735	572	64	48.1	72.8	41.3	32.2	3.6	99.3	150.2	85.3	66.4	7.4
76	13.6	28.6	1.5	3.1	1,498	3,164	1,258	1,015	110	61.6	130.0	51.7	41.7	4.5	79.8	168.5	67.0	54.1	5.9
77	7.7	11.3	1.8	2.6	2,664	3,921	1,538	1,488	346	100.4	147.8	58.0	56.1	13.0	117.7	173.2	67.9	65.7	15.3
77	22.9	40.1	1.5	2.7	1,269	2,220	1,008	835	55	45.9	80.3	36.5	30.2	2.0	86.6	151.5	68.8	56.9	3.8
78	0.3	0.8	0.3	0.8	1,358	3,232	1,224	4,218	4,218	66.0	157.1	59.5	205.1	205.1	33.4	79.5	30.1	103.8	103.8
79	2.2	3.2	2.2	3.2	4,027	6,015	3,725	1,853	1,853	118.8	177.5	109.9	54.7	54.7	61.1	91.2	56.5	28.1	28.1
80	48.8	64.8	3.2	4.3	8,715	11,564	5,248	2,701	178	121.3	161.0	73.1	37.6	2.5	143.7	190.6	86.5	44.5	2.9
81	22.2	39.9	2.9	5.1	7,318	13,167	4,398	2,560	330	112.2	201.9	67.4	39.3	5.1	103.6	186.4	62.3	36.2	4.7
82	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83	0.9	1.6	0.9	1.6	3,525	6,585	3,245	4,091	4,091	91.4	170.7	84.1	106.1	106.1	45.4	84.7	41.8	52.6	52.6
84	17.5	58.5	1.3	4.4	8,895	29,715	4,478	6,792	508	203.2	679.0	102.3	155.2	11.6	45.1	150.7	22.7	34.4	2.6
85	8.6	0.0	1.4	0.0	2,397	0	1,282	1,746	279	78.4	0.0	41.9	57.1	9.1	8.1	0.0	4.3	5.9	0.9
86	25.4	51.2	3.5	7.1	9,969	20,070	2,571	2,826	392	202.8	408.2	52.3	57.5	8.0	95.1	191.5	24.5	27.0	3.7

# TUNNEL 16S TEST STATISTICS

26-Nov-86

26-Nov-86						MANHOURS								COST (\$)									
FY	TYPE	ENTR	DSH	LOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL#	
75	BALS	1	64.0	43.7	22.5	12.0	4.3	4,128	69	1,032	1,163	158	115	1,436	12,768	268	0	254	22,166	0	0	0	35,456
76	BALS	2	131.7	105.2	56.6	2.2	24.3	9,489	127	1,961	3,691	501	365	4,557	41,340	330	0	1,224	126,360	0	0	0	169,254
77	BALS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
77	BALS	1	80.0	65.7	36.7	3.0	11.3	5,679	110	1,611	2,381	323	235	2,940	2,856	607	0	580	77,280	0	0	0	81,323
78	BALS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
79	BALS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
80	BALS	2	96.0	62.8	41.6	24.9	8.3	7,837	276	5,520	5,508	748	544	6,800	96,000	9,000	0	3,222	345,000	17,004	0	0	470,226
81	BALS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
82	BALS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
83	BALS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
84	BALS	1	55.7	13.1	6.6	41.0	1.6	1,066	12	240	5,454	97	179	5,730	113,290	1,455	0	489	75,406	5,678	17,653	213,971	
85	BALS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
86	BALS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

## PRODUCTIVITY

## COST

## MANHOURS

## ELECTRICITY

FY	ATP/LOH	ATP/AOH	OP/LOH	OP/AOH	\$/LOH	\$/AOH	\$/DSH	\$/OP	\$/ATP	MMH/LOH	MMH/AOH	MMH/DSH	MMH/OP	MMH/ATP	MMH/LOH	MMH/AOH	MMH/DSH	MMH/OP	MMH/ATP
75	23.6	45.9	1.6	3.1	811	1,576	554	514	34	32.9	43.8	22.4	20.8	1.4	94.5	183.5	64.5	59.8	4.0
76	18.6	34.6	1.2	2.2	1,609	2,990	1,285	1,333	86	43.3	80.5	34.6	35.9	2.3	90.2	167.7	72.1	74.7	4.8
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	24.5	43.9	1.7	3.0	1,238	2,216	1,017	739	50	44.7	80.1	36.8	26.7	1.8	86.4	154.7	71.0	51.6	3.5
78	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	87.9	132.7	4.4	6.6	7,488	11,304	4,898	1,704	85	108.3	163.5	70.8	24.6	1.2	124.8	188.4	81.6	28.4	1.4
81	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84	18.3	36.4	0.9	1.8	16,334	32,420	3,841	17,831	892	437.4	868.2	102.9	477.5	23.9	81.4	161.5	19.1	88.8	4.4
85	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



# TUNNEL 168 TEST STATISTICS

26-Nov-86

26-Nov-86						MANHOURS								COST (\$)									
FY	TYPE	ENTR	OSH	LOH	AOH	I/R	AEDC DOMN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*	
75	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	BAPS	2	194.3	101.7	78.4	55.2	37.4	15,065	296	5,800	9,315	1,265	920	11,500	164,000	15,000	0	5,985	662,000	23,763	0	0	870,749
81	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	BAPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	BAPS	1	196.7	52.4	27.3	135.1	9.2	5,109	205	1,469	7,151	210	1,126	8,487	176,963	0	0	580	249,392	5,774	42,161	474,870	

## PRODUCTIVITY

## COST

## MMHOURS

## ELECTRICITY

FY	ATP/LOH	ATP/AOH	OP/LOH	OP/AOH	\$/LOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/LOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/LOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	57.0	74.0	2.9	3.8	8,562	11,106	4,481	2,942	150	113.1	146.7	59.2	38.9	2.0	148.1	192.2	77.5	50.9	2.6
81	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86	28.0	53.8	3.9	7.5	9,062	17,395	2,414	2,316	323	162.0	310.9	43.1	41.4	5.8	97.5	187.1	26.0	24.9	3.5

# TUNNEL 16S TEST STATISTICS

26-Nov-86						MANHOURS								COST (\$)								
FY	TYPE	ENTR	OSH	UOH	AOH	I/R	AEDC DOWN	MMH	OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
75	MISS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	MISS	1	48.0	39.1	5.2	2.0	6.9	858	27	102	1,704	231	168	2,104	19,200	480	0	201	8,000	0	0	27,881
77	MISS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	MISS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	MISS	3	65.5	59.0	24.8	0.0	6.5	1,972	19	19	3,156	429	312	3,896	46,096	598	0	572	32,880	0	0	80,145
79	MISS	2	37.3	34.5	23.1	0.0	2.8	2,107	75	75	3,321	451	328	4,100	56,000	2,000	0	948	80,000	0	0	138,948
80	MISS	2	17.7	10.3	10.8	0.0	7.4	1,798	90	1,370	324	44	32	400	48,000	3,000	0	964	83,000	5,931	0	140,895
81	MISS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	MISS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	MISS	1	41.6	38.3	20.5	0.0	3.3	1,737	33	33	3,000	300	200	3,500	50,000	4,000	0	800	70,000	2,200	8,000	135,000
84	MISS	2	209.7	110.4	75.0	30.2	45.1	10,042	223	2,982	30,328	718	1,982	33,028	627,884	914	0	5,972	849,443	43,517	111,432	1,639,162
85	MISS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	MISS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PRODUCTIVITY					COST					MANHOURS					ELECTRICITY				
FY	ATP/UOH	ATP/AOH	OP/UOH	OP/AOH	\$/UOH	\$/AOH	\$/OSH	\$/OP	\$/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP	MMH/UOH	MMH/AOH	MMH/OSH	MMH/OP	MMH/ATP
75	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76	2.6	19.6	0.7	5.2	713	5,362	581	1,033	273	53.8	404.6	43.8	77.9	20.6	21.9	165.0	17.9	31.8	8.4
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	0.3	0.8	0.3	0.8	1,338	3,232	1,224	4,218	4,218	66.0	157.1	59.5	205.1	205.1	33.4	79.5	30.1	103.8	103.8
79	2.2	3.2	2.2	3.2	4,027	6,015	3,725	1,853	1,853	118.8	177.5	109.9	54.7	54.7	61.1	91.2	56.5	28.1	28.1
80	133.0	126.9	8.7	8.3	13,679	13,046	7,960	1,565	103	38.8	37.0	22.6	4.4	0.3	174.6	166.5	101.6	20.0	1.3
81	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83	0.9	1.6	0.9	1.6	3,525	6,585	3,245	4,091	4,091	91.4	170.7	84.1	106.1	106.1	45.4	84.7	41.8	52.6	52.6
84	27.0	39.8	2.0	3.0	14,847	21,855	7,817	7,351	550	299.2	440.4	157.5	148.1	11.1	91.0	133.9	47.9	45.0	3.4
85	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## TUNNEL 168 TEST STATISTICS

**26-Nov-86**

## MANHOURS

**COST (\$)**[illegible]

147

## PRODUCTIVITY

**COST**

## MAN-HOURS

## ELECTRICITY

[illegible]

# TUNNEL 16S TEST STATISTICS

26-Nov-86						MANHOURS								COST (\$)									
FY	TYPE	ENTR	DSH	LOH	AOH	AEDC				OP	ATP	CALSPAN	SUPPORT	OT	TOTAL	LABOR	MATERIAL	TRAVEL	PSI	ELEC	COMP	OTHER	TOTAL*
						I/R	DOWN	MMH															
75	SIPS	3	432.0	376.6	265.0	0.0	54.4	41,418	625	3,831	13,184	1,790	1,302	16,277	137,134	17,600	0	1,904	110,026	0	0	0	266,664
76	SIPS	1	48.0	46.8	28.7	0.0	1.2	4,898	128	529	4,137	562	409	5,108	49,610	410	0	644	38,540	0	0	0	89,204
77	SIPS	1	144.0	62.7	61.8	24.2	57.1	10,757	166	680	7,695	1,045	760	9,500	88,700	1,977	0	1,889	172,400	0	0	0	264,966
77	SIPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	SIPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SIPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	SIPS	1	105.0	76.8	64.5	5.3	22.9	12,450	183	1,340	8,991	1,221	888	11,100	166,000	14,000	0	5,220	547,000	26,000	0	0	758,220
81	SIPS	1	144.1	96.4	53.8	30.6	17.1	10,325	323	2,370	7,371	1,001	728	9,100	139,000	11,000	0	4,776	521,000	18,000	0	0	693,776
82	SIPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	SIPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	SIPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	SIPS	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	SIPS	1	96.8	23.3	10.3	72.3	1.2	2,092	62	455	5,831	4	1,028	6,863	144,359	0	0	3,877	102,288	2,811	26,433	0	279,768

PRODUCTIVITY					COST					MANHOURS					ELECTRICITY				
FY	ATP/LOH	ATP/AOH	OP/LOH	OP/AOH	\$/LOH	\$/AOH	\$/DSH	\$/OP	\$/ATP	MMH/LOH	MMH/AOH	MMH/DSH	MMH/OP	MMH/ATP	MMH/LOH	MMH/AOH	MMH/DSH	MMH/OP	MMH/ATP
75	10.2	14.5	1.7	2.4	708	1,006	617	427	70	43.2	61.4	37.7	26.0	4.2	110.0	156.3	95.9	66.3	10.8
76	11.3	18.4	2.7	4.5	1,906	3,108	1,858	697	169	109.1	178.0	106.4	39.9	9.7	104.6	170.6	102.0	38.3	9.3
77	10.8	11.0	2.6	2.7	4,226	4,287	1,840	1,596	390	151.5	153.7	66.0	57.2	14.0	171.6	174.1	74.7	64.8	15.8
77	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	17.4	20.8	2.4	2.8	9,873	11,755	7,221	4,143	566	144.5	172.1	105.7	60.7	8.3	162.1	193.0	118.6	68.0	9.3
81	26.6	44.1	3.4	6.0	7,197	12,895	4,815	2,148	293	94.4	169.1	63.2	28.2	3.8	107.1	191.9	71.7	32.0	4.4
82	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86	19.5	44.2	2.7	6.0	12,007	27,162	2,890	4,512	615	294.5	666.3	70.9	110.7	15.1	89.8	203.1	21.6	33.7	4.6

**APPENDIX D**  
**Economic Analysis Examples**

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D.2	Separation Test.....	154

## **A. FORCE TEST**

### **1. DESCRIPTION OF A BASELINE FORCE TEST IN TUNNEL 4T**

#### **a. OBJECTIVE:**

- o OBTAIN AIRCRAFT STATIC STABILITY AND LOADS DATA FOR 10 AIRCRAFT/ STORE CONFIGURATIONS**

#### **b. MEASUREMENTS:**

- o ONE SIX-COMPONENT MAIN BALANCE**
- o TWO SIX-COMPONENT PYLON BALANCES**
- o TWO BASE AND TWO CAVITY PRESSURES**

#### **c. TEST MATRIX:**

- o MACH NO. .2,.4,.6,.8,.95,1.05,1.2,1.3,1.6,2.0**
- o ANGLE OF ATTACK: -4 TO 24 DEG (2 DEG INC)  
BETA = 0 DEG.**
- o ANGLE OF SIDESLIP: -10 TO 10 DEG (2 DEG INC)  
ALPHA = -4,0,4,8,12,16 DEG**
- o REYNOLDS NUMBER: 2.5 MILLION/FT**

#### **d. CONSTRAINTS:**

- o PITCH POLARS RUN IN POSITIVE DIRECTION ONLY**
- o BETA POLARS RUN IN POSITIVE DIRECTION ONLY**
- o DATA OBTAINED USING PITCH/ROLL PAUSE TECHNIQUE**
- o FORCE/MOMENT SETUP DATA REQUIRED EACH MODEL CHANGE**
- o EACH CONFIGURATION WILL REQUIRE 30 MIN. ACTUAL MODEL WORK**
- o OBTAIN 10 UOH PER DAY**
- o USE STANDARD PRESSURE SYSTEM**
- o FOR INSTALLATION, USE 12 MHR/HR**
- o FOR ALL OTHER ACTIVITIES, USE 16 MHR/HR**

# A. FORCE TESTS (CONTINUED)

## 2. TIME & ENERGY CURRENTLY USED ON A FORCE TEST IN TUNNEL 4T

### a. TRANSONIC TESTING

ACTIVITY	M	PT	MM	VARY	ATP	OP	PER CONFIG		OCCUR.	TOTAL				
							SEC/ATP	TIME(MIN)		DSH	MMH	ASH	UDH	MHRS
INSTALLATION								1200	1	20.00	0.00			240.0
PREOPS								30	4	2.00	0.00		2.00	32.0
ON-LINE			28	H,PT				3	1.40	10	0.50	14.00	0.50	8.0
DRYING	0.2	3200	45	SCH				2	1.50	10	0.33	15.00	0.33	5.3
FLOW ANGLE	0.2	3200	45	ALPHA	15	1	6	1.5	1.13	1	0.03	1.13	0.03	0.4
TESTING	0.2	3200	45	ALPHA	15	1	6	1.5	1.13	10	0.25	11.25	0.25	4.0
TESTING	0.2	3200	45	BETA	11	6	13	14.3	10.73	10	2.38	107.25	2.38	38.1
CHANGE			39	H,PT				3	1.95	10	0.50	19.50	0.50	8.0
FLOW ANGLE	0.4	2200	35	ALPHA	15	1	6	1.5	0.88	1	0.03	0.88	0.03	0.4
TESTING	0.4	2200	35	ALPHA	15	1	6	1.5	0.88	10	0.25	8.75	0.25	4.0
TESTING	0.4	2200	35	BETA	11	6	13	14.3	8.34	10	2.38	83.42	2.38	38.1
CHANGE			35	H,PT				3	1.75	10	0.50	17.50	0.50	8.0
FLOW ANGLE	0.6	1600	35	ALPHA	15	1	6	1.5	0.88	1	0.03	0.88	0.03	0.4
TESTING	0.6	1600	35	ALPHA	15	1	6	1.5	0.88	10	0.25	8.75	0.25	4.0
TESTING	0.6	1600	35	BETA	11	6	13	14.3	8.34	10	2.38	83.42	2.38	38.1
CHANGE			35	H,PT				3	1.75	10	0.50	17.50	0.50	8.0
FLOW ANGLE	0.8	1400	35	ALPHA	15	1	6	1.5	0.88	1	0.03	0.88	0.03	0.4
TESTING	0.8	1400	35	ALPHA	15	1	6	1.5	0.88	10	0.25	8.75	0.25	4.0
TESTING	0.8	1400	35	BETA	11	6	13	14.3	8.34	10	2.38	83.42	2.38	38.1
CHANGE			35	H,PT				3	1.75	10	0.50	17.50	0.50	8.0
FLOW ANGLE	0.95	1300	35	ALPHA	15	1	6	1.5	0.88	1	0.03	0.88	0.03	0.4
TESTING	0.95	1300	35	ALPHA	15	1	6	1.5	0.88	10	0.25	8.75	0.25	4.0
TESTING	0.95	1300	35	BETA	11	6	13	14.3	8.34	10	2.38	83.42	2.38	38.1
CHANGE			35	H,PT				3	1.75	10	0.50	17.50	0.50	8.0
FLOW ANGLE	1.05	1200	35	ALPHA	15	1	6	1.5	0.88	1	0.03	0.88	0.03	0.4
TESTING	1.05	1200	35	ALPHA	15	1	6	1.5	0.88	10	0.25	8.75	0.25	4.0
TESTING	1.05	1200	35	BETA	11	6	13	14.3	8.34	10	2.38	83.42	2.38	38.1
CHANGE			35	H,PT				3	1.75	10	0.50	17.50	0.50	8.0
FLOW ANGLE	1.2	1200	35	ALPHA	15	1	6	1.5	0.88	1	0.03	0.88	0.03	0.4
TESTING	1.2	1200	35	ALPHA	15	1	6	1.5	0.88	10	0.25	8.75	0.25	4.0
TESTING	1.2	1200	35	BETA	11	6	13	14.3	8.34	10	2.38	83.42	2.38	38.1
CHANGE			35	H,PT				3	1.75	10	0.50	17.50	0.50	8.0
FLOW ANGLE	1.3	1200	35	ALPHA	15	1	6	1.5	0.88	1	0.03	0.88	0.03	0.4
TESTING	1.3	1200	35	ALPHA	15	1	6	1.5	0.88	10	0.25	8.75	0.25	4.0
TESTING	1.3	1200	35	BETA	11	6	13	14.3	8.34	10	2.38	83.42	2.38	38.1
OPEN DOOR			15					16	4.00	8	2.13	32.00	2.13	34.1
MODEL CHANGE			15					30	7.50	8	4.00	60.00	4.00	64.0
CLOSE DOOR			15					15	3.75	8	2.00	30.00	2.00	32.0
POSTOPS			0					30		4	2.00		2.00	32.0
TRANSONIC TOTALS										57.7	1,046.4	25.6	37.7	843.7

# A. FORCE TESTS (CONTINUED)

## b. SUPERSONIC TESTING (WITH BLOCKS)

ACTIVITY	N	PT	MM	VARY	ATP	OP	PER CONFIG		OCCUR.	TOTAL				
							SEC/ATP	TIME(MIN)		OSH	MWH	ADH	UOH	MHRS
INSTALL BLOCKS								240	1	4.00				48.0
PREOPS								30	3	1.50			1.50	24.0
ON LINE			25 N,PT					5 2.08	10	0.83	20.83	0.83	0.83	13.3
DRYING	1.6	1300	42 SCH					10 7.00	10	1.67	70.00	1.67	1.67	26.7
FLOW ANGLE	1.6	1300	42 ALPHA		15	1	6	1.5 1.05	1	0.03	1.05	0.03	0.03	0.4
TESTING	1.6	1300	42 ALPHA		15	1	6	1.5 1.05	10	0.25	10.50	0.25	0.25	4.0
TESTING	1.6	1300	42 BETA		11	6	13	14.3 10.01	10	2.38	100.10	2.38	2.38	38.1
OPEN DOOR			15					16 4.00	8	2.13	32.00		2.13	34.1
MODEL CHANGE			15					30 7.50	8	4.00	60.00		4.00	64.0
CLOSE DOOR			15					15 3.75	8	2.00	30.00		2.00	32.0
CHANGE BLOCKS								480	1	8.00				96.0
ON LINE			26 N,PT					5 2.17	10	0.83	21.67	0.83	0.83	13.3
DRYING	2	1500	44 SCH					10 7.33	10	1.67	73.33	1.67	1.67	26.7
FLOW ANGLE	2	1500	44 ALPHA		15	1	6	1.5 1.10	1	0.03	1.10	0.03	0.03	0.4
TESTING	2	1500	44 ALPHA		15	1	6	1.5 1.10	10	0.25	11.00	0.25	0.25	4.0
TESTING	2	1500	44 BETA		11	6	13	14.3 10.49	10	2.38	104.87	2.38	2.38	38.1
OPEN DOOR			15					16 4.00	8	2.13	32.00		2.13	34.1
MODEL CHANGE			15					30 7.50	8	4.00	60.00		4.00	64.0
CLOSE DOOR			15					15 3.75	8	2.00	30.00		2.00	32.0
POSTOPS								30	3	1.50			1.50	24.0
SUPERSONIC TOTALS										41.6	658.5	10.3	29.6	617.3

## c. SUMMARY

	OSH	MWH	ADH	UOH	MHRS
TRANSONIC TOTALS	57.7	1046.4	25.6	37.7	843.7
SUPERSONIC TOTALS	41.6	658.5	10.3	29.6	617.3
TOTAL	99.3	1704.9	35.9	67.3	1461.1



# A. FORCE TESTS (CONTINUED)

## 3. TIME & ENERGY USED ON A FORCE TEST IN TUNNEL 4T WITH A FLEXIBLE NOZZLE

ACTIVITY	N	PT	MM	VARY	ATP	OP	PER CONFIG		CONFIG	TOTAL				
							SEC/ATP	TIME(MIN)		QSH	MMH	ASH	UDH	MHRS
INSTALLATION								1200	1	20.00	0.00			240.0
PREOPS								30	5	2.50	0.00		2.50	40.0
ON-LINE			28	N,PT				3 1.40	10	0.50	14.00	0.50	0.50	8.0
DRYING	0.2	3200	45	SCH				2 1.50	10	0.33	15.00	0.33	0.33	5.3
FLOW ANGLE	0.2	3200	45	ALPHA	15	1	6	1.5 1.13	1	0.03	1.13	0.03	0.03	0.4
TESTING	0.2	3200	45	ALPHA	15	1	6	1.5 1.13	10	0.25	11.25	0.25	0.25	4.0
TESTING	0.2	3200	45	BETA	11	6	13	14.3 10.73	10	2.38	107.25	2.38	2.38	38.1
CHANGE			39	N,PT				3 1.95	10	0.50	19.50	0.50	0.50	8.0
FLOW ANGLE	0.4	2200	35	ALPHA	15	1	6	1.5 0.88	1	0.03	0.88	0.03	0.03	0.4
TESTING	0.4	2200	35	ALPHA	15	1	6	1.5 0.88	10	0.25	8.75	0.25	0.25	4.0
TESTING	0.4	2200	35	BETA	11	6	13	14.3 8.34	10	2.38	83.42	2.38	2.38	38.1
CHANGE			35	N,PT				3 1.75	10	0.50	17.50	0.50	0.50	8.0
FLOW ANGLE	0.6	1600	35	ALPHA	15	1	6	1.5 0.88	1	0.03	0.88	0.03	0.03	0.4
TESTING	0.6	1600	35	ALPHA	15	1	6	1.5 0.88	10	0.25	8.75	0.25	0.25	4.0
TESTING	0.6	1600	35	BETA	11	6	13	14.3 8.34	10	2.38	83.42	2.38	2.38	38.1
CHANGE			35	N,PT				3 1.75	10	0.50	17.50	0.50	0.50	8.0
FLOW ANGLE	0.8	1400	35	ALPHA	15	1	6	1.5 0.88	1	0.03	0.88	0.03	0.03	0.4
TESTING	0.8	1400	35	ALPHA	15	1	6	1.5 0.88	10	0.25	8.75	0.25	0.25	4.0
TESTING	0.8	1400	35	BETA	11	6	13	14.3 8.34	10	2.38	83.42	2.38	2.38	38.1
CHANGE			35	N,PT				3 1.75	10	0.50	17.50	0.50	0.50	8.0
FLOW ANGLE	0.95	1300	35	ALPHA	15	1	6	1.5 0.88	1	0.03	0.88	0.03	0.03	0.4
TESTING	0.95	1300	35	ALPHA	15	1	6	1.5 0.88	10	0.25	8.75	0.25	0.25	4.0
TESTING	0.95	1300	35	BETA	11	6	13	14.3 8.34	10	2.38	83.42	2.38	2.38	38.1
CHANGE			35	N,PT				3 1.75	10	0.50	17.50	0.50	0.50	8.0
FLOW ANGLE	1.05	1200	35	ALPHA	15	1	6	1.5 0.88	1	0.03	0.88	0.03	0.03	0.4
TESTING	1.05	1200	35	ALPHA	15	1	6	1.5 0.88	10	0.25	8.75	0.25	0.25	4.0
TESTING	1.05	1200	35	BETA	11	6	13	14.3 8.34	10	2.38	83.42	2.38	2.38	38.1
CHANGE			35	N,PT				3 1.75	10	0.50	17.50	0.50	0.50	8.0
FLOW ANGLE	1.2	1200	35	ALPHA	15	1	6	1.5 0.88	1	0.03	0.88	0.03	0.03	0.4
TESTING	1.2	1200	35	ALPHA	15	1	6	1.5 0.88	10	0.25	8.75	0.25	0.25	4.0
TESTING	1.2	1200	35	BETA	11	6	13	14.3 8.34	10	2.38	83.42	2.38	2.38	38.1
CHANGE			35	N,PT				3 1.75	10	0.50	17.50	0.50	0.50	8.0
FLOW ANGLE	1.3	1200	35	ALPHA	15	1	6	1.5 0.88	1	0.03	0.88	0.03	0.03	0.4
TESTING	1.3	1200	35	ALPHA	15	1	6	1.5 0.88	10	0.25	8.75	0.25	0.25	4.0
TESTING	1.3	1200	35	BETA	11	6	13	14.3 8.34	10	2.38	83.42	2.38	2.38	38.1
CHANGE			39	N,PT				3 1.95	10	0.50	19.50	0.50	0.50	8.0
FLOW ANGLE	1.6	1300	42	ALPHA	15	1	6	1.5 1.05	1	0.03	1.05	0.03	0.03	0.4
TESTING	1.6	1300	42	ALPHA	15	1	6	1.5 1.05	10	0.25	10.50	0.25	0.25	4.0
TESTING	1.6	1300	42	BETA	11	6	13	14.3 10.01	10	2.38	100.10	2.38	2.38	38.1
CHANGE			43	N,PT				3 2.15	10	0.50	21.50	0.50	0.50	8.0
FLOW ANGLE	2	1500	44	ALPHA	15	1	6	1.5 1.10	1	0.03	1.10	0.03	0.03	0.4
TESTING	2	1500	44	ALPHA	15	1	6	1.5 1.10	10	0.25	11.00	0.25	0.25	4.0
TESTING	2	1500	44	BETA	11	6	13	14.3 10.49	10	2.38	104.87	2.38	2.38	38.1
OPEN DOOR			15					16 4.00	8	2.13	32.00		2.13	34.1
MODEL CHANGE			15					30 7.50	8	4.00	60.00		4.00	64.0
CLOSE DOOR			15					15 3.75	8	2.00	30.00		2.00	32.0
POSTOPS			0					30 0.00	5	2.50	0.00		2.50	40.0
TRISONIC TOTALS										65.1	1,316.0	31.9	45.1	960.8

## **B. SEPARATION TESTS**

### **1. DESCRIPTION OF A BASELINE SEPARATION TEST IN TUNNEL 4T**

#### **a. OBJECTIVE**

- o TO OBTAIN FREE-STREAM, GRID, AND CTS DATA FOR TWO STORE MODELS ON ONE AIRCRAFT MODEL.

#### **b. MEASUREMENTS:**

- o ONE SIX-COMPONENT STORE BALANCE.

#### **c. TEST MATRIX:**

- o MACH NO. .6, .8, .95, 1.1, 1.3, 1.6 2.0
- o ANGLE OF ATTACK:
  - 1. STORE FREESTREAM: 15 ANGLES
  - 2. PARENT: 2 VALUES AT EACH MACH NUMBER
- o SIDE SLIP ANGLES: 3 FOR EACH FREESTREAM MACH NUMBER
- o AIRCRAFT LOADING CONFIGS: 3 FOR EACH STORE
- o CARRIAGE POSITIONS: 2 FOR EACH AIRCRAFT LOADING
- o MASS PROPERTY VARIATIONS: 3 FOR ONE STORE
- o REYNOLDS NUMBER: 2.5 MILLION/FT

#### **d. CONSTRAINTS:**

- o GRID SURVEY WILL CONSIST OF 2 TRAVERSES AT VARIOUS X, Y, AND THETA VALUES, TOTALING 100 POINTS
- o ONE HOUR TO CHANGE STORE MODEL
- o 30 MINUTES TO CHANGE AIRCRAFT LOADING CONFIGS.
- o OBTAIN 10 UOH PER DAY
- o FOR INSTALLATION, USE 12 MHR/HR
- o FOR ALL OTHER ACTIVITIES, USE 16 MHR/HR

# B. CTS/GRID TESTS (CONTINUED)

## 2. TIME & ENERGY CURRENTLY USED ON A CTS/GRID TEST IN TUNNEL 4T

a. TRANSONIC TESTING										PER CONFIG	TOTAL (HRS)				
ACTIVITY	M	PT	NW	VARY	(POS)	(ALP)	(SEC/TRA)	TIME(MIN)	MMH	OCCUR.	OSH	MMH	ACH	UOH	MHRS
INSTALLATION								1200		1	20.00				240.0
PREDPS								30		4	2.00			2.00	32.0
ON-LINE			23	N,PT				3	1.2	2	0.10	2.30	0.10	0.10	1.6
DRYING	0.6	1600	35	SCH				2	1.2	2	0.07	2.33	0.07	0.07	1.1
FREE STREAM	0.6	1600	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
CHANGE			35	N,PT				3	1.8	2	0.10	3.50	0.10	0.10	1.6
FREE STREAM	0.8	1400	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
CHANGE			35	N,PT				3	1.8	2	0.10	3.50	0.10	0.10	1.6
FREE STREAM	0.95	1300	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
CHANGE			35	N,PT				3	1.8	2	0.10	3.50	0.10	0.10	1.6
FREE STREAM	1.1	1200	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
CHANGE			35	N,PT				3	1.8	2	0.10	3.50	0.10	0.10	1.6
FREE STREAM	1.3	1200	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
STORE MODEL CHANGE			35					30	17.5	1	0.50	17.50		0.50	8.0
INSTALL PARENT AIRCRAFT			35					720		1	12.00				144.0
ON LINE			35	N,PT				3	1.8	6	0.30	10.50	0.30	0.30	4.8
DRYING	0.6	1600	35	SCH				2	1.2	6	0.20	7.00	0.20	0.20	3.2
GRID	0.6	1600	35	X,Y,Z	100	4	6	40	23.3	6	4.00	140.00	4.00	4.00	64.0
CHANGE			35	N,PT				3	1.8	6	0.30	10.50	0.30	0.30	4.8
GRID	0.8	1400	35	X,Y,Z	100	4	6	40	23.3	6	4.00	140.00	4.00	4.00	64.0
CHANGE			35	N,PT				3	1.8	6	0.30	10.50	0.30	0.30	4.8
GRID	0.95	1300	35	X,Y,Z	100	4	6	40	23.3	6	4.00	140.00	4.00	4.00	64.0
CHANGE			35	N,PT				3	1.8	6	0.30	10.50	0.30	0.30	4.8
GRID	1.1	1200	35	X,Y,Z	100	4	6	40	23.3	6	4.00	140.00	4.00	4.00	64.0
CHANGE			35	N,PT				3	1.8	6	0.30	10.50	0.30	0.30	4.8
GRID	1.3	1200	35	X,Y,Z	100	4	6	40	23.3	6	4.00	140.00	4.00	4.00	64.0
PROGRAM CHANGE	1.3	1200	35					6	3.5	6	0.60	21.00	0.60	0.60	9.6
CTS	1.3	1200	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
CHANGE			35	N,PT				3	1.8	3	0.15	5.25	0.15	0.15	2.4
CTS	1.1	1200	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
CHANGE			35	N,PT				3	1.8	3	0.15	5.25	0.15	0.15	2.4
CTS	0.95	1300	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
CHANGE			35	N,PT				3	1.8	3	0.15	5.25	0.15	0.15	2.4
CTS	0.8	1400	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
CHANGE			35	N,PT				3	1.8	3	0.15	5.25	0.15	0.15	2.4
CTS	0.6	1600	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
STORE MODEL CHANGE			15					30	7.5	1	0.50	7.50		0.50	8.0
CTS	1.3	1200	35	X,Y,Z	6	2	240	48	28.0	3	2.40	84.00	2.40	2.40	38.4
CHANGE			35	N,PT				3	1.8	3	0.15	5.25	0.15	0.15	2.4
CTS	1.1	1200	35	X,Y,Z	6	2	240	48	28.0	3	2.40	84.00	2.40	2.40	38.4
CHANGE			35	N,PT				3	1.8	3	0.15	5.25	0.15	0.15	2.4
CTS	0.95	1300	35	X,Y,Z	6	2	240	48	28.0	3	2.40	84.00	2.40	2.40	38.4
CHANGE			35	N,PT				3	1.8	3	0.15	5.25	0.15	0.15	2.4
CTS	0.8	1400	35	X,Y,Z	6	2	240	48	28.0	3	2.40	84.00	2.40	2.40	38.4
CHANGE			35	N,PT				3	1.8	3	0.15	5.25	0.15	0.15	2.4
CTS	0.6	1600	35	X,Y,Z	6	2	240	48	28.0	3	2.40	84.00	2.40	2.40	38.4
OPEN DOOR			15					16	4.0	6	1.60	24.00		1.60	25.6
MODEL CHANGE			15					15	3.8	4	1.00	15.00		1.00	16.0
CLOSE DOOR			15					15	3.8	6	1.50	22.50		1.50	24.0
POSTOPS								30		4	2.00			2.00	32.0
TRANSONIC TOTALS											83.7	1,575.1	42.6	51.7	1,210.7

# B. CTS/GRID TESTS (CONTINUED)

b. SUPERSONIC TESTING (WITH BLOCKS)										PER CONFIG		TOTAL				
ACTIVITY	N	PT	NH	VARY	(POS)	(ALP)	(SEC/TRA)	TIME (MIN)	NMH	OCCUR.	OSH	NMH	AOH	UOH	MHRS	
=====																
INSTALL BLOCKS								480		1	8.00				96.0	
PREOPS								30		4	2.00			2.00	32.0	
ON LINE			26	N,PT				5	2.2	6	0.50	13.00	0.50	0.50	8.0	
DRYING	1.6	1300	42	SCH				10	7.0	6	1.00	42.00	1.00	1.00	16.0	
GRID	1.6	1300	42	X,Y,Z	100	4	6	40	28.0	6	4.00	168.00	4.00	4.00	64.0	
PROGRAM CHANGE	1.6	1300	42					6	4.2	6	0.60	25.20	0.60	0.60	9.6	
CTS	1.6	1300	42	X,Y,Z	2	2	270	18	12.6	3	0.90	37.80	0.90	0.90	14.4	
STORE MODEL CHANGE			15					30	7.5	2	1.00	15.00	1.00	1.00	16.0	
CTS	1.6	1300	42	X,Y,Z	6	2	240	48	33.6	3	2.40	100.80	2.40	2.40	38.4	
REMOVE PARENT AIRCRAFT			0					90	0.0	1	1.50	0.00	1.50	1.50	24.0	
FREE STREAM	1.6	1300	42	ALPHA	15	3	16	12	8.4	2	0.40	16.80	0.40	0.40	6.4	
CHANGE BLOCKS								360		1	6.00				96.0	
ON LINE			27	N,PT				5	2.3	6	0.50	13.50	0.50	0.50	8.0	
DRYING	2	1500	44	SCH				10	7.3	6	1.00	44.00	1.00	1.00	16.0	
GRID	2	1500	44	X,Y,Z	100	4	6	40	29.3	6	4.00	176.00	4.00	4.00	64.0	
PROGRAM CHANGE	2	1500	44					6	4.4	6	0.60	26.40	0.60	0.60	9.6	
CTS	2	1500	44	X,Y,Z	2	2	270	18	13.2	3	0.90	39.60	0.90	0.90	14.4	
STORE MODEL CHANGE			15					30	7.5	2	1.00	15.00	1.00	1.00	16.0	
CTS	2	1500	44	X,Y,Z	6	2	240	48	35.2	3	2.40	105.60	2.40	2.40	38.4	
REMOVE PARENT AIRCRAFT			0					90	0.0	1	1.50	0.00	1.50	1.50	24.0	
FREE STREAM	2	1500	44	ALPHA	15	3	16	12	8.8	2	0.40	17.60	0.40	0.40	6.4	
OPEN TUNNEL			15					16	4.0	12	3.20	48.00		3.20	51.2	
MODEL CHANGE			15					15	3.8	8	2.00	30.00		2.00	32.0	
CLOSE TUNNEL			15					15	3.8	12	3.00	45.00		3.00	48.0	
POSTOPS								30		4	2.00			2.00	32.0	
=====																
SUPERSONIC TOTALS											50.8	979.3	24.6	36.8	780.8	

## c. SUMMARY

	OSH	NMH	AOH	UOH	MHRS
TRANSONIC TOTALS	83.7	1575.1	42.6	51.7	1210.7
SUPERSONIC TOTALS	50.8	979.3	24.6	36.8	780.8
TOTAL	134.5	2554.4	67.2	88.5	1991.5

# B. CTS/GRID TESTS (CONTINUED)

## 3. TIME & ENERGY USED ON A CTS/GRID TEST IN TUNNEL 4T WITH A FLEXIBLE NOZZLE

ACTIVITY	N	PT	MM	VARY	(POS)	(ALP)	(SEC/TRA)	PER CONFIG		OCCUR.	TOTAL (HRS)				
								TIME (MIN)	MMH		OSH	MMH	AOH	LOH	MHRS
INSTALLATION								1200		1	20.00				240.0
PREOPS								30		7	3.50			3.50	56.0
ON-LINE			23	N,PT				3	1.2	2	0.10	2.30	0.10	0.10	1.6
DRYING	0.6	1600	35	SCH				2	1.2	2	0.07	2.33	0.07	0.07	1.1
FREE STREAM	0.6	1600	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
CHANGE			35	N,PT				3	1.8	2	0.10	3.50	0.10	0.10	1.6
FREE STREAM	0.8	1400	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
CHANGE			35	N,PT				3	1.8	2	0.10	3.50	0.10	0.10	1.6
FREE STREAM	0.95	1300	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
CHANGE			35	N,PT				3	1.8	2	0.10	3.50	0.10	0.10	1.6
FREE STREAM	1.1	1200	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
CHANGE			35	N,PT				3	1.8	2	0.10	3.50	0.10	0.10	1.6
FREE STREAM	1.3	1200	35	ALPHA	15	3	16	12	7.0	2	0.40	14.00	0.40	0.40	6.4
CHANGE			38	N,PT				3	1.9	2	0.10	3.80	0.10	0.10	1.6
FREE STREAM	1.6	1300	42	ALPHA	15	3	16	12	8.4	2	0.40	16.80	0.40	0.40	6.4
CHANGE			43	N,PT				3	2.2	2	0.10	4.30	0.10	0.10	1.6
FREE STREAM	2	1500	44	ALPHA	15	3	16	12	8.8	2	0.40	17.60	0.40	0.40	6.4
STORE MODEL CHANGE			15					30	7.5	1	0.50	7.50		0.50	8.0
INSTALL PARENT AIRCRAFT								720		1	12.00				144.0
ON LINE			23	N,PT				3	1.15	6	0.30	6.90	0.30	0.30	4.8
DRYING	0.6	1600	35	SCH				2	1.166	6	0.20	7.00	0.20	0.20	3.2
GRID	0.6	1600	35	X,Y,Z	100	4	6	40	23.33	6	4.00	140.00	4.00	4.00	64.0
CHANGE			35	N,PT				3	1.75	6	0.30	10.50	0.30	0.30	4.8
GRID	0.8	1400	35	X,Y,Z	100	4	6	40	23.33	6	4.00	140.00	4.00	4.00	64.0
CHANGE			35	N,PT				3	1.75	6	0.30	10.50	0.30	0.30	4.8
GRID	0.95	1300	35	X,Y,Z	100	4	6	40	23.33	6	4.00	140.00	4.00	4.00	64.0
CHANGE			35	N,PT				3	1.75	6	0.30	10.50	0.30	0.30	4.8
GRID	1.1	1200	35	X,Y,Z	100	4	6	40	23.33	6	4.00	140.00	4.00	4.00	64.0
CHANGE			35	N,PT				3	1.75	6	0.30	10.50	0.30	0.30	4.8
GRID	1.3	1200	35	X,Y,Z	100	4	6	40	23.33	6	4.00	140.00	4.00	4.00	64.0
CHANGE			28	N,PT				3	1.4	6	0.30	8.40	0.30	0.30	4.8
GRID	1.6	1300	42	X,Y,Z	100	4	6	40	28	6	4.00	168.00	4.00	4.00	64.0
CHANGE			43	N,PT				3	2.15	6	0.30	12.90	0.30	0.30	4.8
GRID	2	1500	44	X,Y,Z	100	4	6	40	29.33	6	4.00	176.00	4.00	4.00	64.0
PROGRAM CHANGE	2	1500	44					6	4.4	6	0.60	26.40	0.60	0.60	9.6

3. TIME & ENERGY USED ON A CTS/GRID TEST IN TUNNEL 4T WITH A FLEXIBLE NOZZLE  
(CONTINUED)

ACTIVITY	H	PT	NW	VARY	(POS)	(ALP)	(SEC/TRA)	PER CONFIG		OCCUR.	TOTAL (HRS)				
								TIME (MIN)	NWH		DSH	NWH	ADH	UDH	MHRS
CTS	2	1500	44	X,Y,Z	2	2	270	18	13.2	3	0.90	39.60	0.90	0.90	14.4
CHANGE			43	N,PT				3	2.15	3	0.15	6.45	0.15	0.15	2.4
CTS	1.6	1300	42	X,Y,Z	2	2	270	18	12.6	3	0.90	37.80	0.90	0.90	14.4
CHANGE			28	N,PT				3	1.4	3	0.15	4.20	0.15	0.15	2.4
CTS	1.3	1200	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
CHANGE			35	N,PT				3	1.75	3	0.15	5.25	0.15	0.15	2.4
CTS	1.1	1200	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
CHANGE			35	N,PT				3	1.75	3	0.15	5.25	0.15	0.15	2.4
CTS	0.95	1300	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
CHANGE			35	N,PT				3	1.75	3	0.15	5.25	0.15	0.15	2.4
CTS	0.8	1400	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
CHANGE			35	N,PT				3	1.75	3	0.15	5.25	0.15	0.15	2.4
CTS	0.6	1600	35	X,Y,Z	2	2	270	18	10.5	3	0.90	31.50	0.90	0.90	14.4
STORE MODEL CHANGE			15					30	7.5	1	0.50	7.50		0.50	8.0
CTS	0.6	1600	35	X,Y,Z	6	2	240	48	28	3	2.40	84.00	2.40	2.40	38.4
CHANGE			35	N,PT				3	1.75	3	0.15	5.25	0.15	0.15	2.4
CTS	0.8	1400	35	X,Y,Z	6	2	240	48	28	3	2.40	84.00	2.40	2.40	38.4
CHANGE			35	N,PT				3	1.75	3	0.15	5.25	0.15	0.15	2.4
CTS	0.95	1300	35	X,Y,Z	6	2	240	48	28	3	2.40	84.00	2.40	2.40	38.4
CHANGE			35	N,PT				3	1.75	3	0.15	5.25	0.15	0.15	2.4
CTS	1.1	1200	35	X,Y,Z	6	2	240	48	28	3	2.40	84.00	2.40	2.40	38.4
CHANGE			35	N,PT				3	1.75	3	0.15	5.25	0.15	0.15	2.4
CTS	1.3	1200	35	X,Y,Z	6	2	240	48	28	3	2.40	84.00	2.40	2.40	38.4
CHANGE			28	N,PT				3	1.4	3	0.15	4.20	0.15	0.15	2.4
CTS	1.6	1300	42	X,Y,Z	6	2	240	48	33.6	3	2.40	100.80	2.40	2.40	38.4
CHANGE			43	N,PT				3	2.15	3	0.15	6.45	0.15	0.15	2.4
CTS	2	1500	44	X,Y,Z	6	2	240	48	35.2	3	2.40	105.60	2.40	2.40	38.4
OPEN DOOR			15					16	4	6	1.60	24.00		1.60	25.6
MODEL CHANGE			15					15	3.75	4	1.00	15.00		1.00	16.0
CLOSE DOOR			15					15	3.75	6	1.50	22.50		1.50	24.0
POSTOPS								30		7	3.50			3.50	56.0
TRISONIC TOTALS											103.5	2,279.8	59.4	71.5	1,527.5